Objects For Impact

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Master of Arts Thesis 2019
Aalto University School of Art, Design and Architecture

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Abstract

An artefact can be defined as a human made object that has a cultural or historical significance. It is an object that is defined and moulded by its context. Representing a moment in time and space, it serves as an informant of events and practices that were or still are. Such an object can be designed and contextually embedded to provide discourse, narrate stories, fuel thought and evoke emotions.

This thesis investigates and presents an approach to the creation of a series of artefacts that lend discourse to an important and ongoing topic - the sexual and reproductive health of women in low resource environments. This topic is explored through research conducted by M4ID oy, a social impact firm based in Helsinki, in the context of four countries - Tanzania, Kenya, Nigeria and India. A practice led approach is then employed to develop a series of objects that represent this topic and important transition moments in the life journey of women in these countries. The objects, termed as Engagement Objects, are devised through methodologies of discursive design and applied art in the realm of experimental glass and ceramics. These objects aim to provide an immersive and evocative medium to help people engage and empathise with these topics that are far removed from themselves, through material and tactility.

Keywords: artefacts, discursive design, experimental design, applied art, glass, ceramics

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INTRODUCTION - 1

This chapter familiarises the reader with the topic and introduces the project, context, and role of the author. It includes an outline of the research questions and objectives of this investigation, and provides a structure for the thesis. This chapter includes a note on the limitations and challenges faced as well.

The journey of a person, from their birth to their death, is a progressive yet complex amalgam of infinitesimal transition moments, touch points, events, roles and experiences. Some of these are more significant than others and serve as defining moments of this life journey and one's identity. An approach and methodology to studying the life journey is known as the life course approach, where-in these transition moments of significance are analysed to reveal the pathways taken, decisions made and its effect on the health and well-being of the individual. This approach is a way to conduct research of people's lives within structural, social, and cultural contexts. And a realm of significance for this research is the sexual and reproductive health of women in low resource environments.

The research topic of this thesis, Objects for Impact, investigates an approach to represent issues and transition moments in the life course of women in low resource settings through the creation of a series of objects, termed as Engagement Objects. These objects are an outcome of human centered and discursive design methodologies which intend to reflect, provoke, expose assumptions and spark debate with regard to these issues.

This body of work stems from and is a part of M4ID oy (now known as Scope Impact oy), a social impact firm based in Helsinki, and it's ongoing three year long project, The Core project. This project investigates the life-course of women and its relation to their sexual and reproductive health in four countries - Tanzania, Kenya, Nigeria and India. Herein, as a part of my five and a half month internship, I was tasked to develop these Engagement Objects to facilitate the representation of their research in an effort to make their reports more engaging, immersive and impactful, and to serve as a memory to the project.

The intention of this research is to analyze critical thinking in the design of objects that serve to create awareness of real world issues in an effort to be impactful and tactile. It aims to explore the practice of design methodologies towards the creation of tactile objects that tell a story with a yearn to extract an emotional response, and in this experiential process, create a bond between the creator, viewer and the context.

The relevance of this research topic is that it investigates the capability of discursive design to help people engage and empathise with topics that are far removed from themselves. It aims to bring people with the resources to create positive change closer to the lives of women in low resource environments.

The outcome of this project is a series of objects that engage with some of the topics identified by M4ID in the Core project. I applied an experimental and discursive design approach to achieve this. These are presented as a separate photobook in addition to this thesis.

The Core project

The Core project is a three year long project that aims to better understand the sexual and reproductive health (here on referred to as SRH) of women in low resource environments, specifically in India, Kenya, Nigeria and Tanzania. The project is comprised of over 19 anthropology, design, communication and development specialists and it uses the life course approach alongside human centered design and interdisciplinary approaches to co-create new solutions for women and to equip and empower them to lead healthier sexual and reproductive lives (M4ID, 2018). M4ID oy, the social impact firm that leads this project, is now known as Scope Impact oy. For the purpose of this thesis, here on the company will be refereed to as M4ID.

The Core project approaches its research in a stage wise manner, termed as Discover stages. Prior to Discover 1, the project performed a background analysis, literature review and landscape analysis for each country. Discover 1 was a ten day field research that aimed to contextualize the research and gather country specific insights into the life journey of women, their key transition moments and its effect on their sexual and reproductive health. The Discover 1 stage, its analysis and synthesis would then inform the project into a more focused Discover 2 research stage.

The synthesis of the Core project's research led to the formulation of a journey map of the life course of women (Figure 1). Here, key moments of transition are mapped on a scale, from foetal development to death. This map was an important resource for my immersion into the project and to explore points of focus through these transition moments.

The analysis of the Discover 1 stage led the project to focus on concepts of Pre-Marriage and Marriage in India, Family Planning in Kenya, Capacity Building in Nigeria and Adolescence in Tanzania. (M4ID, 2019). Most of the work documented in this thesis is based on the outcomes from the project's Discover 1 stage and the country specific focal points. The Discover research itself is beyond the scope of this thesis.

The Core Creative and Immersive Experience is a sub project under the Core project that, at the time of this body of work, comprised of me and my thesis advisor cum internship supervisor, Sandra Viña, and was lead by Mari Tikkanen, Co-CEO of M4ID oy. The project aims to approach the representation of the research being conducted, and its outcomes through alternative, artistic and creative means. This approach, as mentioned earlier, was sparked by the idea that the research can be more engaging and impactful if presented not only through reports and presentations decks, but with supporting art and design pieces that are contextually rich, immersive and engaging.

My contribution to this track was to use artistic practice, discursive design and contemporary design methodologies to develop a series of objects, termed as Engagement Objects. These objects engaged with the topics on a material level. A selection of these objects were then presented as an invitational gift to the Core project's advisory board at their meeting held in London on the 26th of March, 2019.

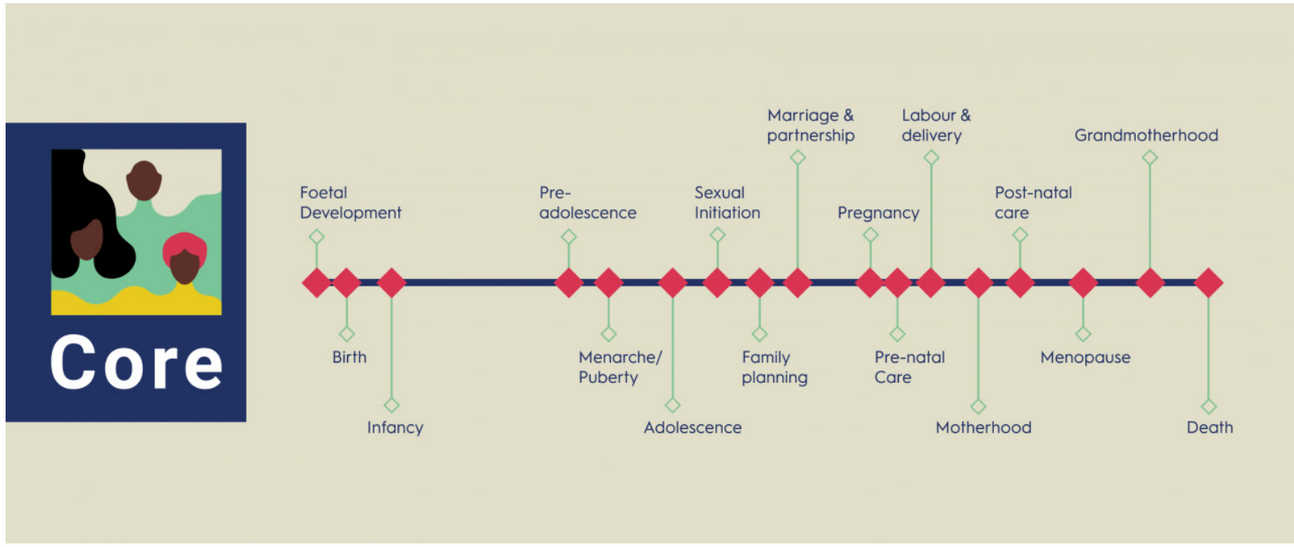


Figure 1. The life course journey of women as mapped by the Core project. (M4ID, n.d.).

My Role

My initial brief for the project was to go through the country specific research that had been done by The Core project's Discover 1 probe and to get an idea of the focal points in the projects research. Further to this, I was to come up with concepts for a set of art and design objects that represented the project and their research that is centered around an array of issues and transition moments pertaining to women's sexual and reproductive health.

By immersing myself into this research project and reflecting upon it, I came across an array of themes and transition moments that are significantly impactful to the life course of women. I wanted to see whether some of these could be respectfully but emotionally represented through artefacts. A limitation to this was that I am male and not immediately immersed into the situations that these women face. Therefore my findings were largely procured from the outcomes of the Core project's research. These are centered around the context of the role of men, marriage, pre-marriage, pregnancy, menstruation, menopause, health and family planning. This is illustrated as a mind map in figure 3. They serve as pathways into gaining a further understanding of the impact they have on the life course, and is beyond the scope of this text.

My process of the creation of these engagement objects started at an undefined and undetermined stage. I was not required to use any fixed medium, approach or methodology, and could formulate one through my own understanding and experience with applied art. I started by viewing and analyzing a set of presentation decks of the research that the Core project had conducted in the four countries. This subsequently led me to also explore some of the source material - interview transcriptions, literature reviews, synthesis notes, and sitting in on synthesis meetings. Through this process, I began to iterate and sketch out a variety of preliminary ideas that went through loops of internal presentations, feedback, reviews and soft prototyping. These initial explorations were based out of my past experience and learnings, and were centered around new media, experimental design, material design, applied arts and discursive design. This process and my initial explorations led be to an understanding of the topics that were most important to the Core project, and an effective medium that I should focus on to develop a set of Engagement Objects.

The feedback was provided internally by The Core team and externally by Dr. Tracy Johnson, Senior Program Officer, User Experience & Innovation at Bill & Melinda Gates Foundation. Approvals at various stages of this project were provided by Sandra Viña and Mari Tikkanen. Support and supervision through the duration of the project was provided by Sandra Viña. Through this process, an array of themes were short-listed. These formed a context of six topics that I focused on, and are presented in this thesis. They are Gender Based Violence, Agency & Societal Restraints, The Taboo of Menstruation, Transactional Sex, Harmful Abortion Practices and Medical Care & Facilities. The feedback also helped me narrow down the mediums and methodologies I was exploring to translate the context into Engagement Objects. They were centered around applied art and discursive design, and are analyzed in this thesis. This led me to work on representing the topics through a series of three Engagement Objects. They are called Encapsulation, Future Fossils and Objects Translated, and are the outcomes of this project. This project structure is illustrated as a diagram in figure 2.

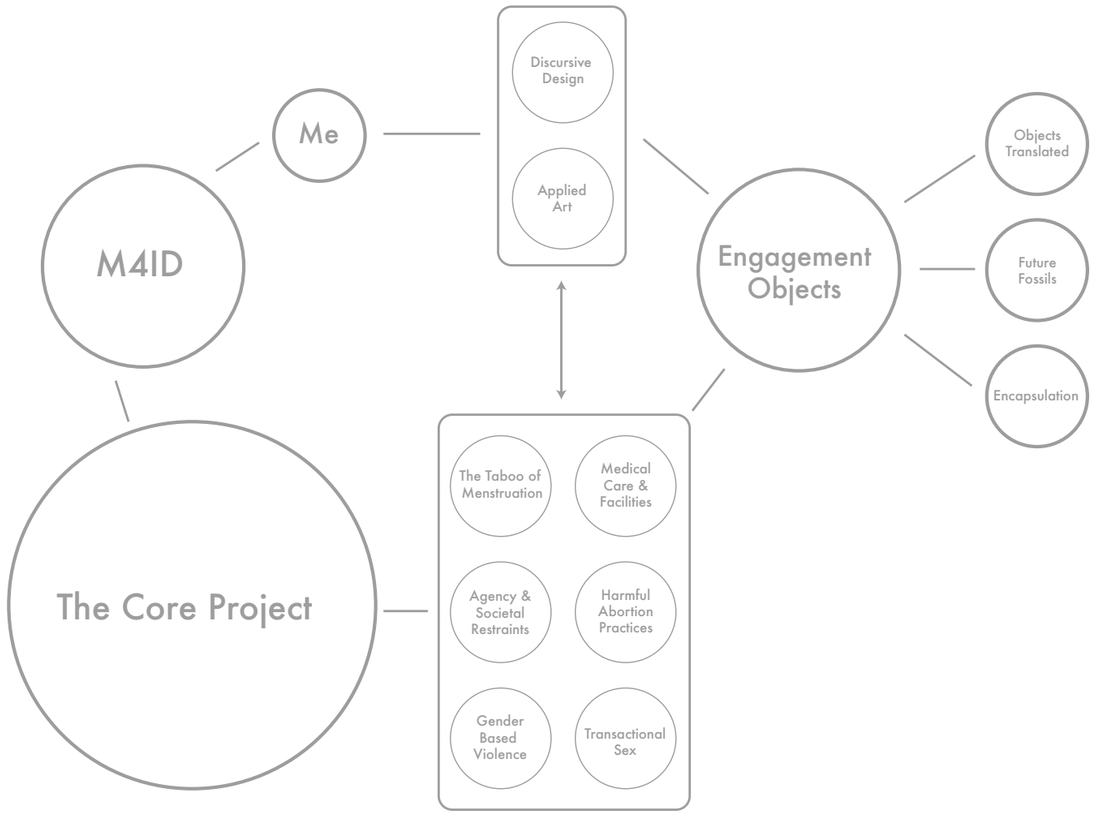


Figure 2. A diagram of the project structure and my role.

Figure 3. A mind map of my findings from the Core project's research.

Research Questions & Objectives

This body of work aims to uncover an approach towards the creation of artefacts that provide value to the ongoing discourse of the SRH of women in low resource environments. The context of the SRH of women in low resource environments is quite broad. The research conducted by the Core project through their Discover 1 and 2 stages provide points of focus and uncover specific issues and transition moments that are significantly impactful to the life of women in these communities. It is important that I explore these points of focus and explore specific topics that are valuable to the discourse of SRH of women and can be engaged with on a material level through contextually embedded artefacts.

With this in mind, the general research question/aims and objectives towards the realisation of this project are -

General Research Question/Aim

How can discursive design practice along with artistic object studies create emotional engagement towards a social impact problem like the health and well-being of women in low resource settings?

Sub Questions

How has discursive design contributed to issues related to sociocultural contexts?

Can discursive design objects serve as a way to support discourse in human centered design projects?

How can discursive design and artistic practice be used as a tool to contribute to a social impact company's work-flow and way of communicating?

Objectives

- An understanding of the context by describing a series of topics relevant to the issues centered around the SRH of women in low resource environments.

- An understanding of design methods like discursive design and artistic practice - their examples in the context of socio-culture.

- Ideating, prototyping, developing and analysing a series of discursive design objects that represent the context.

Project & Thesis Structure

This thesis is divided into six chapters. The first chapter introduces the reader to the overall project and provides a brief overview of the thesis and the author's role in it. It covers the research questions and objectives of this body of work and acknowledges some of the limitations and challenges that were faced earlier on in the project. The second chapter is divided into two parts. Part 1 familiarises the reader with methodologies adopted in this thesis. They are centered around practice led applied research and visual research. As the methodology of human centered design is central to the Core project's research, it is touched upon as well. Part 2 expands on four examples that serve as inspirations for the project.

Chapter three describes the context that serves as the primary motivation for the outcomes of this project. The context outlines five topics of focus and are centered around aspects of Gender Based Violence, Agency & Societal Restraints, The Taboo of Menstruation, Transactional Sex, Harmful Abortion Practices and Medical Care & Facilities. In the fourth chapter, the approach used to engage with the project on a material level is defined. It includes a brief introduction to the materials and processes utilized in this project.

Chapter five describes the Engagement objects and their process. Three sets of objects are elaborated upon and are termed as Encapsulation, Future Fossils and Objects Translated. This is followed by chapter six that concludes this thesis with a discussion of the process and outcomes. It includes a description of the limitations and presents an alternative approach to the project.

Limitations & Challenges

The most obvious limitation that I faced from the beginning of the project is that I am exploring, analyzing and communicating very sensitive issues towards the SRH of women. Being male and based in Helsinki, a city in a developed country, my research was secondary in nature as I lacked the resources in the project's time frame to travel to the Core project's four countries of focus and interact or work with the women in these communities directly. These women are central to this project and are living the realities presented in this thesis. Albeit the limitation, the outcomes of this project hope to connect the viewer to the women in these communities, and give a voice to the issues that they face.

A limitation to the writing of this thesis is the access and publication of the research material conducted by M4ID. The three year long Core project is ongoing, where a lot of the research material conducted in relation to this context, that I had access to, is yet to be published. This is mitigated by cross referencing the research and is presented in the review of the context to ensure that they are well grounded. This also limits the amount, nature of research and literature I communicate in this publication, and is something that defines this body of work to be more focused on my personal inference of the project and the process of creation of the artefacts.

Another challenge that is addressed is the nature of this project being introspective and subjective due to the fact that it is centered around applied research, and can be perceived as biased, based on my personal understanding and experience with the findings. The project is unique and is grounded in a fairly new design discipline that is Discursive design. The efficacy of Discursive design is still a debatable topic and in some cases, even a topic of controversy that I need to be mindful of when approaching this methodology. (Tharp B. and Tharp S., 2015).

METHODS & EXAMPLES - 2

This chapter defines the methods adopted to achieve this body of work. It provides a method structure, and elaborates on four methods that are important to the investigation. It also includes a few external examples to familiarise the reader with the methods and inspirations for this work.

Part 1

Methods & Structure

For an understanding of how this project is realised, a set of methodologies central to design research needs to be defined. Amongst the many research methods out there, Muratovski (2016) expands upon four research methods important to design research. They are Qualitative, Quantitative, Visual and Applied research. Qualitative research is human and individual oriented with an emphasis on real world phenomena and the way the world is seen and experienced. It aims at gaining in depth knowledge or insight. Quantitative research on the other hand is aimed at arriving at conclusions, verifying theories, measuring and testing. It is data and statistic oriented. Visual research explores media with the intent to draw knowledge from existing images and objects. It is oriented towards finding and matching patterns from visual materials. Applied research stems from the field of art and is an inner directed and introspective way of performing research and can be either practice based or practice led.

Additionally, two important approaches towards design that are important to this project are human centered design and discursive design. Human centered design is an approach to design where the human perspective is fundamental to the design process and is accounted for in every step of the process. Discursive design is an approach to the process of designing artefacts with the intention of being communicative and to add discourse to a topic.

For the purpose of this body of work, my method of research will be centered around practice led Applied research. Visual Research is employed for the purpose of seeking media and material knowledge. Discursive design and Human centered design methods play a role in the realization of the project and are elaborated further in the sections that follow.

Method Structure

Human centered design is a fundamental method to M4ID and the Core project's research. Their body of research stemmed from this method and contribute to the context of this thesis. Discursive design and Visual Research methods are employed to analyze how artefacts are designed and contextually embedded to represent a topic. Four examples of these artefacts, that are significant inspirations to the outcomes of this project, are analyzed in this thesis as a example study in Part 2 of this chapter. The project and its outcomes are then realized through practice led Applied research. Figure 4 illustrates this method structure.

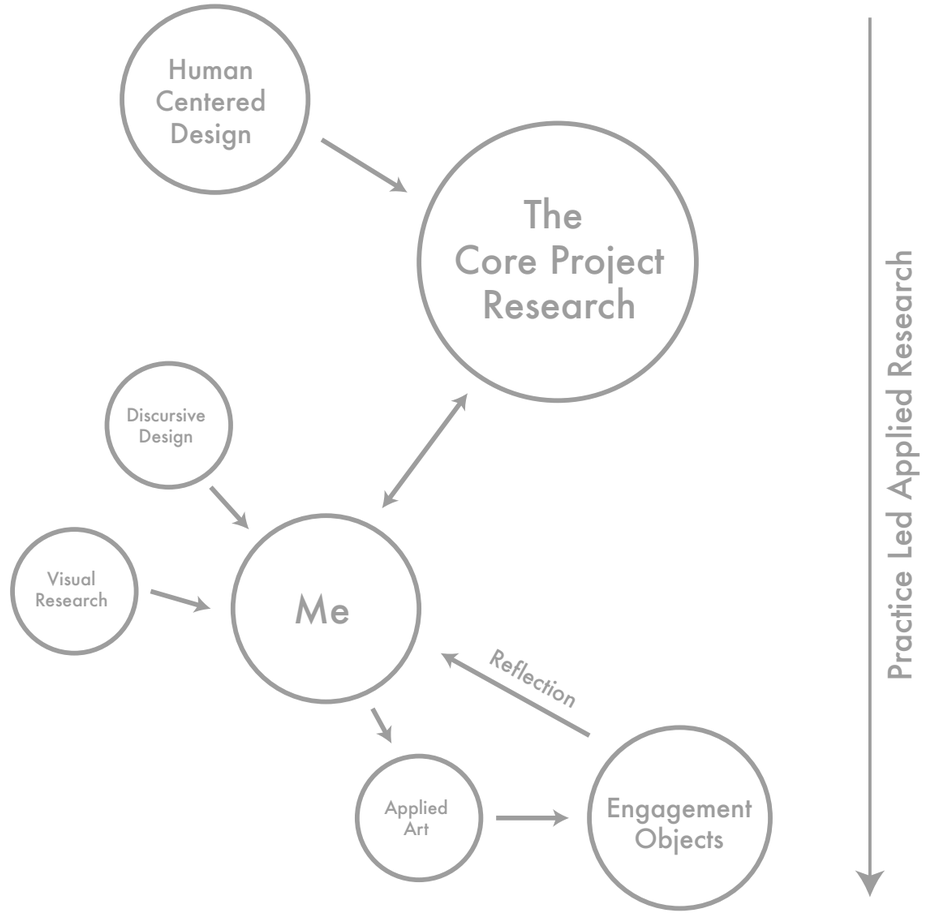


Figure 4. A diagram of the method structure.

Human centered design

"Embracing human-centered design means believing that all problems, even the seemingly intractable ones like poverty, gender equality, and clean water, are solvable. Moreover, it means believing that the people who face those problems every day are the ones who hold the key to their answer. Human-centered design offers problem solvers of any stripe a chance to design with communities, to deeply understand the people they're looking to serve, to dream up scores of ideas, and to create innovative new solutions rooted in people's actual needs." (IDEO, 2015: 09).

Human centered design is based on the idea that people need to be at the centre of the creative thinking and problem solving process. Every step towards innovative solutions need be rooted and shaped by the people being served. This framework allows for a variety of perspectives from different stakeholders towards holistic solutions to complex problems. (M4ID, 2019).

Human centered design plays a key role in M4ID's research. Alongside it being central to M4ID's methodologies, they developed and employed a variety of tactile and interactive tools during their field research for the Core project. An example of this is the Life Course tool - *"Core adapted the Life Course approach and developed a corresponding life course mapping tool to capture the connections and ruptures in women's sexual and reproductive health journeys and grasp the contexts in which they unfold"* (Core, 2018). The tool comprised of a long fabric, made from local fabrics, that portrayed numbers from 0 to 100, signifying age (figure 5). The fabric then engaged in assisting the discussion between a facilitator and the participants, providing a structured and guided framework, prompting sensitive conversations and serving as a journey mapping tool.

As mentioned earlier, This research method is linked to my body of work as I needed to be mindful of it being a central methodology to M4ID's report. This in part ensured that my approach to the process and design of these Engagement Objects stayed in tune with the SRH of women and kept them and their stories at the centre of the creation of them.

Figure 5. The life course mapping tool. (Core,n.d.).

Discursive design

Discursive design is an approach to the creation of artefacts where the artefact's dominant role is to communicate an idea, to spark debate and expose assumptions, rather than be of functional use (Tharp et al., 2013). Discursive design includes an array of methods like critical design, speculative design and design fiction. This approach came up as a form of product design where the product has no emphasis on commercial viability or functional value, but instead critiqued the very nature of the product's existence. Many discursive design projects also critique the role of technology in the life of products and humans. This approach, through Critical design, was popularised by Anthony Dunne and Fiona Raby and a lot of their work is centred around questioning products and technology in our lives (Dunne, A., & Raby, F., n.d.). Discursive design can be seen as more of an umbrella term that encompasses the same ideals of Dunne and Raby's Critical Design but applies a generalized thinking to the creation of objects - discursive objects - with the intention to contribute to a discourse that is not limited to the field of products and technology.

An example of discursive design is illustrated in figure 6, which represents a body of work called Polluted Water Popsicles done by students from the National Taiwan University of Arts. Each popsicle depicts water collected from different sources across Taiwan as a new flavour. Amounting to a hundred flavours with a range of pollutants in each one of them, it serves to question the extent of our negative impact on the planet's water, and the urgency needed to address it.

The approach of discursive design plays a significant role in my journey into the creation of these engagements as the very purpose of the objects is to communicate the complex issues the women in the context of this project face, in a way that engages the viewer into thinking, conversing and potentially acting upon it.

"*Most typically discursive design is understood as a specific breed of objects that a designer plans and instantiates in some physical or digital form. These are then publicly released in hopes of adding to the discourse of a topic, while perhaps engendering reflection and transforming thought and action in the world*" (Tharp et al., 2013: 407).

Figure 6. Polluted Water Popsicles by students from the National Taiwan University of Arts. (Sierzputowski, K.,2018) .

Visual Research

Touched upon earlier, the intent of visual research is to draw knowledge from existing media. The purpose of this form of research in my project is to draw on examples of artefacts that stem from discursive design and artistic practice that will enable me to explore mediums and materialities of expression. Past examples of discursive design and artistic practice play a key role in synthesising my process in the creation of the engagement objects.

A good example of this, that is of relevance to my project is the work of Hiromi Ozaki, better known by her pseudonym Sputniko!, and specifically her project titled “The Menstrual Machine”. The menstrual machine is a piece of critical design and design fiction. It is essentially a metal device that looks like a chastity belt armed with electrodes and a blood dispensing system that replicates abdominal pain and bleeding as is in an average five day menstrual period.

The machine’s relevance and use is then expressed through a fictional and speculative film and narrative through the story of Takashi in his quest to understand the relationship between psychology, biology, identity, choice and essentially what it means to be a girl. (Grosz, 2014). Image 7.

Here, it is not only the designer’s conception and intent of the creation of the machine that is relevant and but also the way it is depicted, designed and constructed. The machine while being functional, is entirely fictitious and was never made to be used. This design fiction is embodied by the visuality of the image in figure 6 and a narrative around is expressed through a film. These depictions are an integral part of the discursivity and criticality of the artefact.

This project is further analysed in an example study later in this chapter.

Figure 7. A depiction of the Menstruation Machine by Sputniko! Photo by Rai Royal. (Grosz, E., 2014).

Applied Research

As this project is centered around the development of a series of contextually embedded Engagement Objects through a practice based approach, a design research methodology like Applied research is necessary to achieve the outcomes of this project, and needs to be introduced.

Applied research is a form of design research that enables practitioners to reflect on and evaluate their own work through an inner directed approach with an intent to improve upon their own practice. The approach has been primarily adopted from art, and implores a practice oriented research approach.

There are two ways to approach applied research - practice based or practice led.. Practice based research can be defined as research where the final outcome is an artefact and is the basis of the investigation (Muratovski, 2016). Here the artefact is an embodiment of the research and new knowledge is achieved partly by the means of practice. A complete understanding of the research is achieved in reference to the artefact. (Linda Candy, 2006). Practice led research on the other hand does not mandate a creative outcome or artefact. The practice itself is the main focus of the research and the method aims to advance knowledge of the practice and within the practice.

Since the main objective of my research is centred around the creation of artefacts embedded with a context, my journey through the development of these engagement objects aims to be a practice based research into the realm of applied art with principles of discursive design.

Part - 2

Example Study

Regridded - Alexandra Leyre Mein, 2016

Alexandra Leyre Mein presents her work, Regridded, as an artwork inspired by the human body and its relation to beauty, violence, death and vulnerability. (Mein, A. L., 2016). The artworks are hybrid forms constructed through plaster, paint, hydrostone and fused with rusty rebars and glass, amongst others.

In the context of this thesis, her work can be interpreted, and provides inspiration towards, a dialogue between the human experience and societal structures. Figure 8 depicts one such piece where the rebar structure signifies the structure of society and community. Its rusty surface can be interpreted as age, time and tradition. The rebar lends structural dexterity to keep the delicate human form from collapsing, but in this act, creates a condition of dependency and control. This human form can be perceived as repressed, and yet yearns to burst out. It flows in and out of the robust structure and finds a way to exist, to stay alive, relevant and beautiful.

The choice of colour - a pristine white for the human form and a dark brown, yellow and red for the rebar - further ingrains this notion, and presents the human form as pure and delicate. It narrates a story of good and bad, of the dominator and the suppressed.

Alexandra's work is presented as context-less, leaving the piece open for personal interpretation, and is something that I would like to be mindful of as I envision my engagement objects.

Figure 8. Regridded. Sculpture by Alexandra Leyre Mein. (Mein, A. L., 2016).

Figure 9. Image depicting Sputniko!'s menstrual machine along with a screening of her film. Mein. Photo by Felix Grünschloß. (ZKM | Center for Art and Media, 2016).

Menstruation Machine - Sputniko! (2011)

Briefly touched upon earlier in Visual Research, The Menstruation Machine as described by Sputniko!, is an art project that lends discourse to the human female experience of menstruation.

The device is designed to be worn around the waist, and is fitted with electrodes and a blood dispensing system. The device simulates abdominal cramps and blood equivalent to an average five day period. Sputniko! further represents the device with a fictional short film in the style of a music video that depicts the use of the machine by a Japanese transvestite boy, Takashi, in an attempt to understand what a period feels like for women, and to his female friends.

The project aims to shed light on an array of issues surrounding politics, society, gender and identity. She questions why humans are still menstruating, even with the conception of contraceptive pills over 50 years ago that are capable of ending menstruation all together, and speculatively expresses her view of this device being useful to the experience of an average human period when they speculatively become obsolete in the future.

Beyond this, and in the context of this thesis, the project is a source of inspiration towards the design and societal impact of a device that gives men the opportunity to experience menstruation as their own, disconnecting it from assumptions, speculations, and potentially taboos of a real and normal human experience.

Sputniko! uses a provocative form of art to dissect the discourse of menstruation. The project is a form of discursive design where the object is essentially product design but without any commercial value. The value of this artefact is engrained in the point it tries to make and the debate is sparks, which it has done successfully as the project has been critiqued, criticized and re-blogged extensively (Sputniko!, 2010).

Here in lies the value of this project in my inspiration and process of thinking for this thesis.

Figure 10. Image depicting one of the *Monoliths* pieces.

Figure 11. Image depicting a close up of the *Monoliths* piece.

Monoliths - Sushant Passi (2017)

Monoliths is an experimental glass project that I did from a course in the first year of my Master of Arts at Aalto Univeristy.

The project was a material experiment to challenge glass as a material and to fuse it with materials, forms and textures from found organic objects like granite, and handmade objects like high fired bone china and porcelain. One of these glass and ceramic fusions (figure 10) and its process of conception is particularly interesting for this thesis.

In this particular piece, the ceramic form can be perceived as soft, fluid and delicate. Its stark white colour presents tenderness and purity. The glass on the other hand stands tall in comparison, encompasses and dominates the delicate form. It represents restraint, security and creates an impermeable layer between the inside and the outside. In the perspective of the soft ceramic form, the outside world can be seen but cannot be experienced.

Upon closer inspection (figure 11) it is visible that the ceramic form has cracked and is broken, an effect caused during the creation of this piece, when the cold, pristine ceramic form was fused with hot, molten glass. Yet the ceramic form stays whole only due to the fact that the glass has encapsulated it. The ceramic form is dependant on the glass for it to exist, for it to have structure. On the other hand the glass form is incomplete without its ceramic counterpart.

The piece was conceived through a dramatic and violent process of ceramic high-firing, glass blowing and hot working. The ceramic form was hand moulded from bone china, dried and fired to 1140°C in a ceramic kiln.

Once it was out of the kiln the piece was fused with glass through glass blowing, after-which it is annealed from 500°C to room temperature, during which there is a clash of internal tensions. The bone china, being more brittle and weaker, cracks and makes room for the glass, while the soft undercuts allow the glass to lock the bone china form mechanically, creating this fusion.

This dialogue and interdependency between the two forms and materialities is open to interpretation. Yet, when represented in the context of this thesis, narrate a story of human dependency, societal structure, restriction, tension and agency.

Both, the concept and process of creation of this artefact are relevant to the context of this thesis and serve as inspiration to the ideation, material and process of the Engagement Objects.

Elemental - Sushant Passi (2018)

Elemental is another experimental glass project that I did from a course in the second half of my first year of my Master of Arts at Aalto Univeristy. The project was a series of material experiments where glass was explored as a hybrid material with organic and inorganic materials, specifically pine tree resin and metal alloys, respectively. The aim of this project was to explore the relationship between glass and these materials, the challenges they pose and the specific process that would ensue to fuse the materials.

The process of fusing glass and metal alloys is particularly interesting to my process for the Engagement Objects in this thesis, and involved two approaches - hot blowing and kiln casting.

The process of kiln casting involved creating a plaster, silica and glass fibre mould. The mould was prepared with a cuboidal positive constructed from polystyrene. The mould's negative space was then loaded with broken pieces of glass, with the metal piece placed in the volumetric centre of the glass. The mould was then placed in a kiln and fired to a temperature of 880°C following a kiln program for glass casting, elaborated further in chapter 4, figure 21 (page 65). After the casting process, the, now cracked and powdery mould, is recovered from the kiln and the casted glass is carefully extracted from it. These glass pieces have a rough and powdery exterior and a process of grinding, sanding and polishing is ensued to reveal the metal inside.

The process of hot blowing involved creating a glass ball through hot working glass, and working it to create a cavity on the surface that I could load with metal fragments that I wanted to fuse and capture with glass. This cavity was then closed by heating it up further, and gathering more glass on top of it to form a thick solid ball. This glass ball is then transferred to another kiln set at 500°C, known as an annealer, and is annealed (cooled slowly) to remove any internal stress and to make it stronger. Figure 14 illustrates an example that is formed through this process with copper wire clippings inside hot blown glass.

The casted glass was explored with a range of alloys, and their results are seen in figure 12. The results of fusions with Tin Aluminium (figure 13) is particularly interesting as it melts and oxidises, changing its colour and form due to the temperature range. It organically morphs with the glass around it. In most cases, the pieces survive the process without cracking or breaking through this process.

In the process of creating pieces from the hot blowing, there is a possibility to have more control over the oxidation process as it is possible to very quickly insulate the metal from the air around it while working both the materials together. This allows for different results. In figure 14 it is visible that parts of the copper wire did not oxidise or melt due to the glass encasing it.

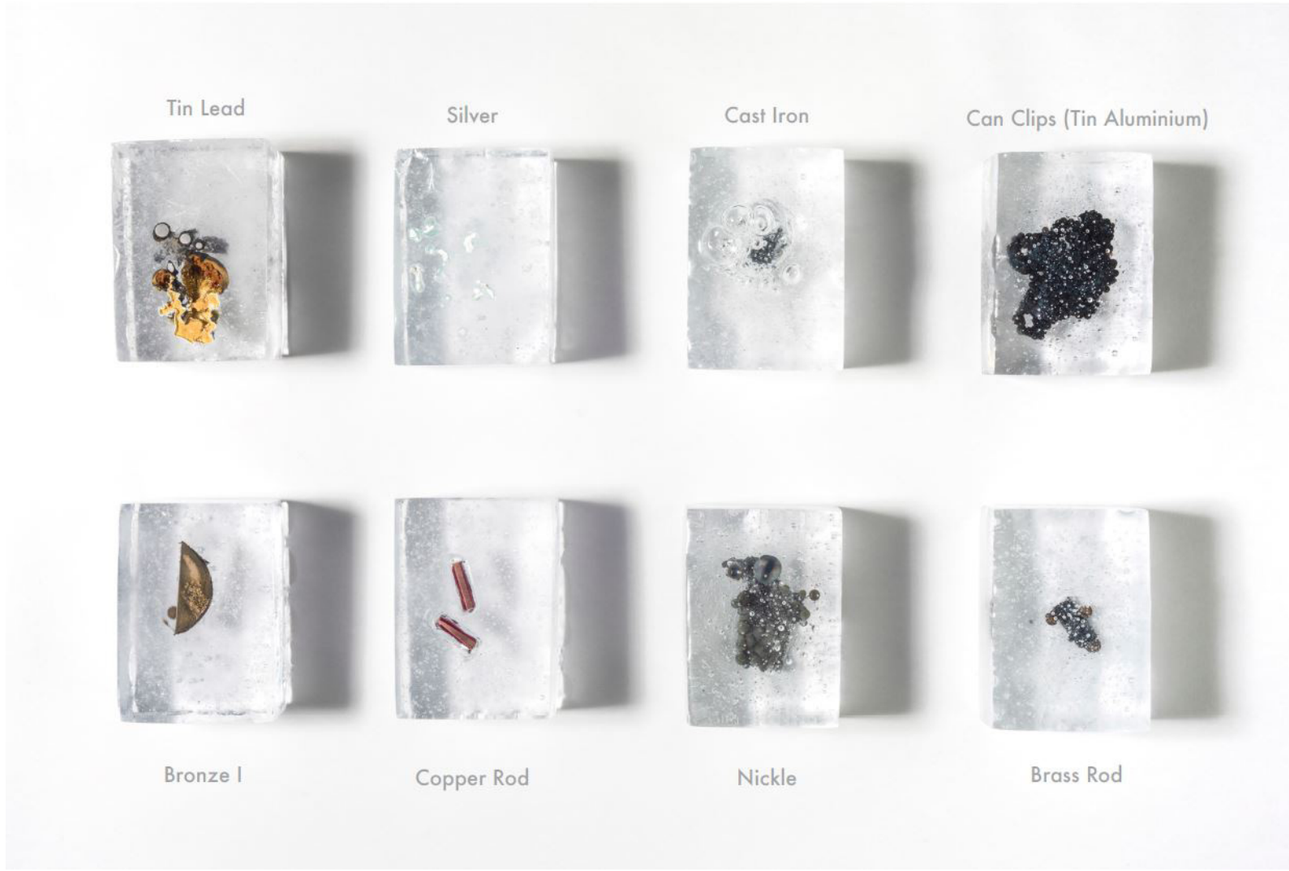


Figure 12. A series of glass objects from the *Elemental* project. Eight different types of metals are casted in glass.

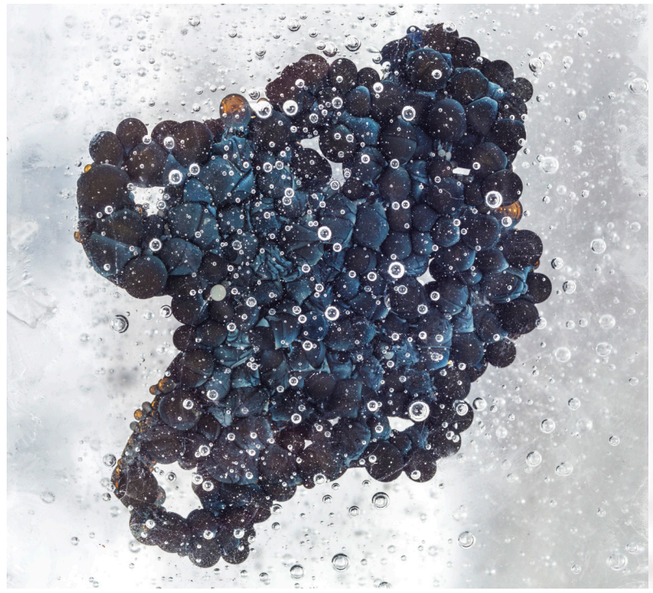
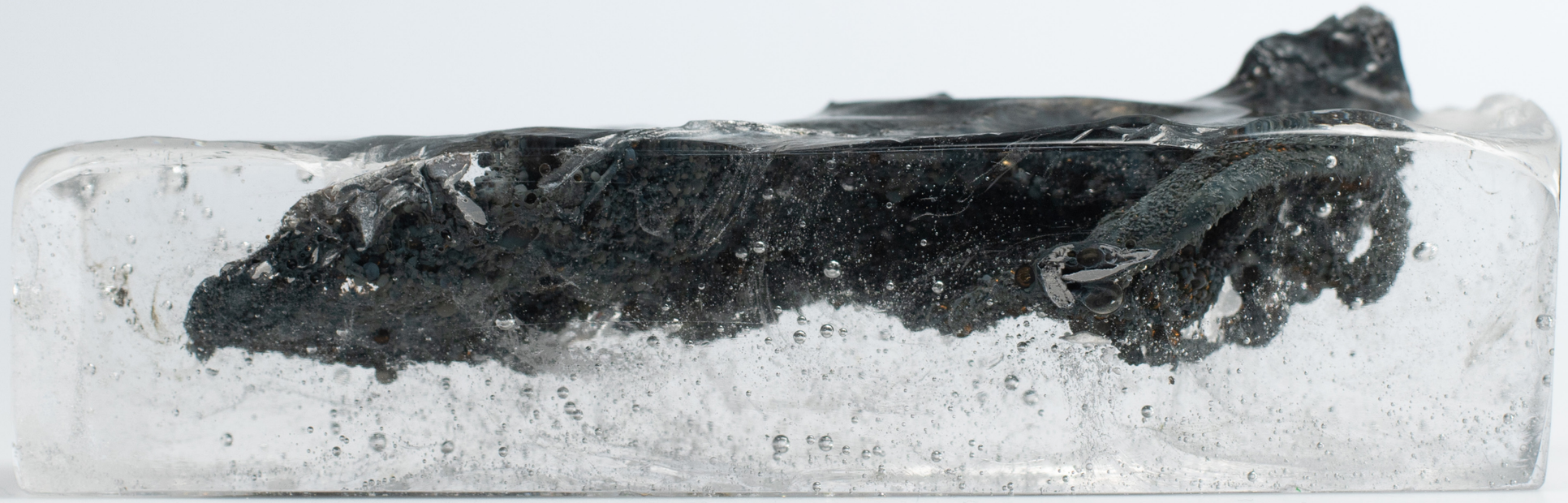


Figure 13. Left. Close up of a glass object from the *Elemental* project. Aluminium casted in glass. Photo by Eva Suorlahti.

Figure 14. Right. A glass object from the *Elemental* project. Copper wire embedded in glass. Photo by Eva Suorlahti.

CONTEXT - 3



This chapter outlines the context topics for this work. It expands on six issues and practices in the discourse of the sexual and reproductive health of women in low resource environments. These topics serve as the primary motivation for the outcomes described in this thesis.

Context Topics

The context of this project is defined by The Core project's research outcomes through their Discovery 1 and Discovery 2 stages. As mentioned earlier in chapter 1, the synthesis of the Core project's research led them to focus on concepts of Pre Marriage and Marriage in India, Family Planning in Kenya, Capacity Building in Nigeria and Adolescence in Tanzania. My process of engaging with the research started off with reviewing the research reported for each of these countries and their topics of focus. These resources can be found in the "Tools and Resources" section on the Core project's website (thisiscore.org).

A word to sum up my emotional state as I viewed the research material was 'Discomfort'. The research presented a whole array of issues, some of which were in the realms of gender based violence, gender based socialisation, lack of agency, societal restrictions and a lack of resources. Sitting here in Finland, in a developed country, I could not help but feel helpless and distant from the ground reality of these issues that women in these communities have to go through, and how it adversely affects their entire life journey. These topics are important to me on a personal level and have played a fundamental role in driving me to realize this project through my past learnings in design.

As this was a personal probe into a real research project, some of the topics covered in the Core project's research that I felt required engagement, consideration and translation into objects were centered around the topics of role of men, marriage, pre-marriage, pregnancy, menstruation, menopause, health and family planning (illustrated in figure 3, page 16). These topics were explored and are summed up into six topics that define the context of this project. They are :

- Gender Based Violence.
- Agency & Societal Restraints.
- The Taboo of Menstruation.
- Transactional sex.
- Harmful Abortion Practices.
- Medical Care and Facilities.

Gender Based Violence

Gender based violence is a phenomenon that stems from the societal issue of gender inequality, and is a major human rights violation. Gender based violence disproportionately affects women and girls, occurs in many forms and is an issue that happens in all parts of the world. The risk and victimization though, is much higher in communities and cultures where there are strict norms and concepts towards gender inequality.

The Core project's research sheds light on one such cultural normalization, and one of the most extreme forms of gender based violence - Female Genital Mutilation (here on referred to as FGM). The world health organisation defines FGM as the procedure of partially removing, completely removing or in some way causing harm to external female genitalia for non-medical reasons. (WHO, 2019).

The procedure of FGM is generally performed by traditional circumciser with the use of locally manufactured tools, homemade remedies and in unsanitary conditions. Figures 15 & 16 depict these tools. This practice is deeply rooted in gender inequities, is a form of extreme discrimination against women and is considered a violation of fundamental human rights.

FGM is common in many countries in Africa and a large number of women are required to undergo the procedure, especially at a young age. Martha Nussbaum elaborates on the statistics of the practice and its relation to feminism in her book Sex & Social Justice *"The practice of female genital mutilation remains extremely common in Africa, although it is illegal, and widely resisted, in most of the countries where it occurs. The World Health Organization estimates that overall, in today's world between 85 and 115 million women have had such operations. In terms of percentages, for example, 93 % of women in Mali have undergone genital cutting, 98% in Somalia, 89% of women in the Sudan, 43% in the Central African Republic, 43% in the Ivory Coast, and 12% in Togo"* (Nussbaum, 2000, p. 120).

This topic is briefly examined in Core's research in Kenya and Nigeria as it is one of the many transition moments that women face at an early stage in their life journey. Yet it posed as a strong aspect of gender based violence and was a topic that I wanted to cover and reflect on through the Engagement Objects.

Photo 2: an FGM toolbox from Kenya

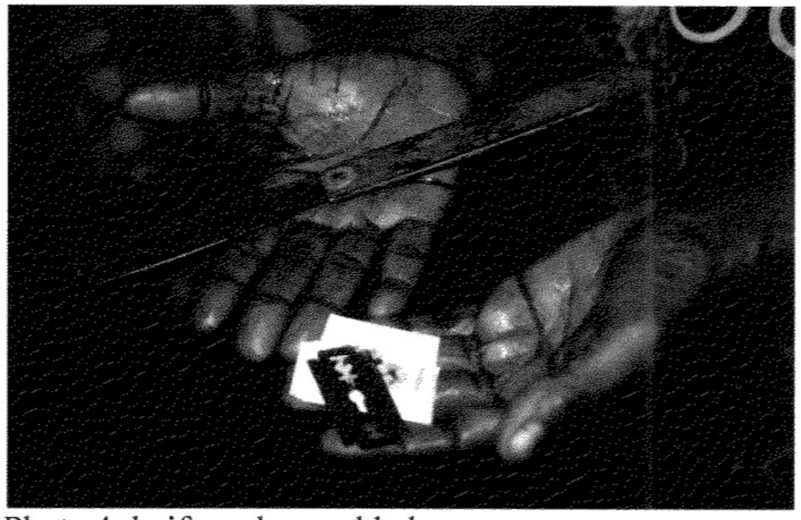


Photo 4: knife and razor blade

Figures 15 & 16. Images depicting tools used in the practice of FGM, as part of a report obtained by Global News on FGM practitioners entering Canada. (Bell, 2017).

Agency & Societal Restraints

The topic of agency and societal restraints stems from the Core project's research done in India. The project's research reveals that women, especially in rural communities in the north east, are faced with many layers of restriction, strict lifestyle routines and roles that are defined by society, community and patriarchy. These women are subjected to immobility, gate-keeping of information, repression and psychologically face a loss of personal identity. Once women come of age, they are subjected to community defined gender roles. They are taught to stay at home, learn to cook, clean and manage the household. They lose the right to travel outside of their locality unless necessary. (Core, 2018). One of their greatest transition moments is when they are arranged to be married to an appropriate man in an appropriate family defined by the family and community. After marriage, they enter a completely new household (the groom's) and are tasked with the responsibilities of the household, and subsequently the bearing and rearing of children.

"No one called me Sangeeta anymore... I was referred to as either dulhan (bride) or Bithanwali (a girl from Bithan)" (Core, 2018).

An example of society enforcing such limitations can be seen in relation to the taboo of menstruation, covered later in this chapter, and its effect on mobility. In 1991, the high court in Kerala, India, placed a ban on women between the age of 10 and 50 from entering the Sabalimara shrine, a temple complex, as they were in their menstruating age. This ban has recently been lifted on the 28th of September, 2018. This was done on the basis that the discrimination against women on any grounds, even religious, is unconstitutional. (NDTV, 2018). The lifting of this ban was a major decision and recieved a lot of coverage and critique across India. It also caused an array of protests from Hinduist groups in Kerala that were against the entry of women in the temple. This issue still persists in the case of the Sabalimara shrine and across other communities in India, where women are not allowed to enter or perform any religious practices on temple grounds. Some temples also put up signboards directed towards women, prohibiting them from approaching the temple grounds, stating " Important Notice - Entrance of ladies during monthly course period is strictly prohibited. They are requested to maintain the sanctity of temples" (Agnes F., October 2018).

The Taboo of Menstruation

An important aspect of agency and societal restraints, as seen in an example earlier, is the taboo of menstruation in India. In many Indian communities a key aspect of the immobility of women, beyond gender norms and gendered socialization, is also defined by cultural & religious taboos of menstruation. During their period of menstruation, women are perceived as impure. They are, for example, not allowed in certain parts of the household, to cook or to take part in any religious activities.

There is little care and provision given towards menstruation for women, with limited access to necessities like sanitary pads. This leads to the fact that some women in rural India are forced to use harmful and unsanitary alternatives like a rags or a sock filled with ash, sand or husk to absorb menstrual blood. This is not only due to poverty, but stems from cause and effect of the taboo of menstruation and a general sense of attributing impurity and shame to it. (Nilesenn, 2011).

Women in these communities are also often required to bury the fabric they used for menstruation, sometimes far away from their homes as it is considered unclean, impure, and shameful (Garg & Anand, 2015).

A traditional practice, known as Chhaupadhi, further cements this notion of menstrual taboos and impurity. It is a practice where women are required to leave their home and stay in a separate hut, often in the form of a mud hut or cattle shed, during menstruation and are barred from participating in any normal family or religious activities.

"Chhaupadi practice, which is characterized by banishment of women during menstruation from their usual residence due to supposed impurity, is in existence in the mid- and far-western regions of Nepal. It has been criticized for violation of basic human rights of women and also for its associated physical and mental health impacts. Despite having been outlawed, it continues to exist due to illiteracy, superstitious beliefs, gender disparity and community endorsement of the practice." (Kadariya, Shanti & Aro, Arja, 2015, p. 53). While this practice is not covered under the Core project's location of research, it ties strongly to the discourse and requires mention.

"We ladies are limited to our doorstep" "I got my period, and the only thing my dadi said was to not touch the pickle pots because they would rot" - Sangeeta (Core, 2018).

Transactional Sex

An analysis of the field research in Tanzania explored adolescence. A key aspect of this research pertains to an issue of transactional sex and unwanted pregnancies.

Transactional sex can be generally defined as an exchange between two partners where sex is exchanged for some form of material support. The nature of transactional sex varies depending on the type of relationship and has different connotations in different parts of the world. In the case of Tanzania, Kenya and generally in sub Saharan Africa, transactional sex bears certain similarities and share the same touch points, where men provide material services in exchange for sexual services from women, typically those who are younger and susceptible to expectational and emotional influence. This typically takes place over a period of time and the relationships are often intimate in nature. (UNAIDS, 2018). Transactional sex is non commercial and shouldn't be confused with sex work. Figure 17 describes the difference between the two.

Transactional sex is an important matter that needs intervention as it stems from gender based inequalities, in some cases even gender based violence, and is largely linked to the issue of unwanted pregnancies and the risk of HIV.

"Transactional sex can be defined as the exchange of gifts or favours for sex. In transactional sexual relationships the giving of gifts or services is an important factor. For example a woman living in extreme poverty who is unable to pay for her rent one month might have sex with her landlord." (AED/T-Marc, 2009).

Figure 17. Difference between sex work and transactional sex. (UNAIDS, 2018).

Sex work	Transactional sex
Self-identifies as sex worker	Does not self-identify as sex worker
Exchange of money or goods linked explicitly to sex	Exchange of money or goods implicit in relationship (including sex)
Often little shared emotional intimacy	Often some shared emotional intimacy

Harmful Abortion Practices

Every woman has the right to control the number and timing of their pregnancies. In this day and age and with a variety of contraceptive methods, it is now much easier to have this control and to make a planned decision towards child birth. Yet many countries across the world enforce lawful restrictions towards the use of many contraceptive methods and abortion. This is one of the major issues in most African countries where abortion is highly restricted. There is a lack of availability of modern contraceptive methods and skilled resources towards abortion, and is considered illegal unless the pregnancy is life threatening. This leads to the act of performing self induced abortions, and is an incredibly harmful practice that can lead to an array of complications like excessive blood-loss, infection and incomplete abortions. The Guttmacher Institute (2018) published a recent fact sheet that elaborates on this and presents the scale of induced abortions in figure 18. Some of these abortion practices include the use of archaic and homemade tools. And rumoured, ineffective solutions like drinking or douching boiled coca-cola (Coast, & Murray,2016). Many of these complications extend beyond the immediate consequences of self induced abortion, and can lead to heavy financial burdens on the families of these women with limited access to quality medical care.

"You use Coca-Cola. You boil it and the chemicals change. School kids do this" - Woman aged 25, Kilifi (Scope, 2019).

Figure 18. Scale of induced abortions in Africa. (Guttmacher Institute, 2018).

Regional and subregional estimates of induced abortion, Africa, 1990–1994 and 2010–2014

Region and subregion	Abortion rate*		% of all pregnancies ending in abortion
	1990–1994	2010–2014	2010–2014
Africa	**33**	**34**	**15**
Eastern Africa	32	34	14
Middle Africa	32	35	13
Northern Africa	41	38	23
Southern Africa	32	34	24
Western Africa	28	31	12

*Abortions per 1,000 women aged 15–44. *Note:* None of the differences between 1990–1994 and 2010–2014 are statistically significant.

Medical Care & Facilities

Further to the topic of limited resources and medical support towards abortion, many communities in Africa lack high quality healthcare. This is a complex issue of medical infrastructure, and the reach of quality healthcare for many of these communities is limited. The nearest hospital for these communities is far away. Child birth, for example, often takes place either at home, or in local health centres with limited skill and infrastructure. The equipment and facilities here tend to be of questionable quality and hygiene. *"On people's rating of the responsiveness of the health services delivery, more than two thirds of the 10 932 respondents rated the services at public sector facilities as inadequate with the only exception being South Africa. The main reasons cited for the poor rating were: unavailability of drugs and equipment (39.1%); poor attitude of health providers (27.7%); and delays in the provision of care and long waiting time (13.1%)."* (WHO, 2012, p. xiii).

This is an especially major issue in the case of the SRH of women and new born children. Poor infrastructure and limited emphasis on quality healthcare, facilities and equipment is a major cause for maternal and neonatal mortality. For example, sub-Saharan Africa has the highest rates of neonatal mortality in the world and has shown the slowest progress in reducing newborn deaths. This is attributed to a significant lack of quality postnatal care with most deaths occurring during the first week of birth due to sepsis infection, asphyxia and birth defects. (WHO, 2019).

This topic relates to a very broad amalgam of issues related to infrastructure, awareness, education, poverty with an array of interconnections to the life course of women and their SRH. This research is ongoing and central to The Core project and M4ID's focus.

MATERIALS & PROCESS - 4

This chapter familiarises the reader with the materials and process used to achieve the outcomes presented in this thesis. It includes an outline of the environment where the majority of the prototyping work took place, and introduces the ideas that are described later in this thesis.

Process and Ideas

Firstly, my environment of work needs to be briefly examined. A lot of my ideation work and some of my initial prototyping took place at M4ID's office in Helsinki in a hot desk environment, where I had access to all the research the Core project had done, and even had the opportunity to speak to the members of the team in an open and friendly way. Getting a thorough understanding of the project's context was done through this open environment and by setting up quick meetings and discussions with the team members and getting their take on what the most relevant topics are in this project that need to be explored and unpacked. The result of this led to the topics, presented in the context (chapter 3) being covered in this thesis.

The Ideation Process

Since the project started at a relatively undefined stage, I selected an array of issues that I felt were relevant to the project, could fit this realm of discursive design and could serve as inspiration for the engagement objects. These led to a series of ideas (illustrated in figure 20) and low fidelity prototypes. These ideas then went through a series of feedback loops with my internship supervisor and thesis advisor - Sandra Viña, CO-CEO Mari Tikkanen and The Core project team, and are beyond the purview of this thesis. Figure 19 depicts one of these internal feedback sessions.

My initial process of ideation and prototyping led me to work on three final ideas, whose process and thinking I will be discussing in this thesis. They are :

- Encapsulation
A series of ceramic forms encapsulated in glass that discuss the issue of agency, mobility and societal restrictions towards women in the context of India, covered earlier in context of this thesis.

- Future Fossils
A series of experimental glass forms and hybrids that represent issues and practices in the topics covered earlier in the context of this thesis.

- Objects Translated
A series of ceramic objects that represent the life course journey of women as mapped by Core in the four countries of focus.

I will elaborate on the process and ideation for these three series of objects in chapter 5.

Figure 19. Internal presentation. Work-in- progress prototypes of the Engagement Objects. Photo by Helena Vizcaino.

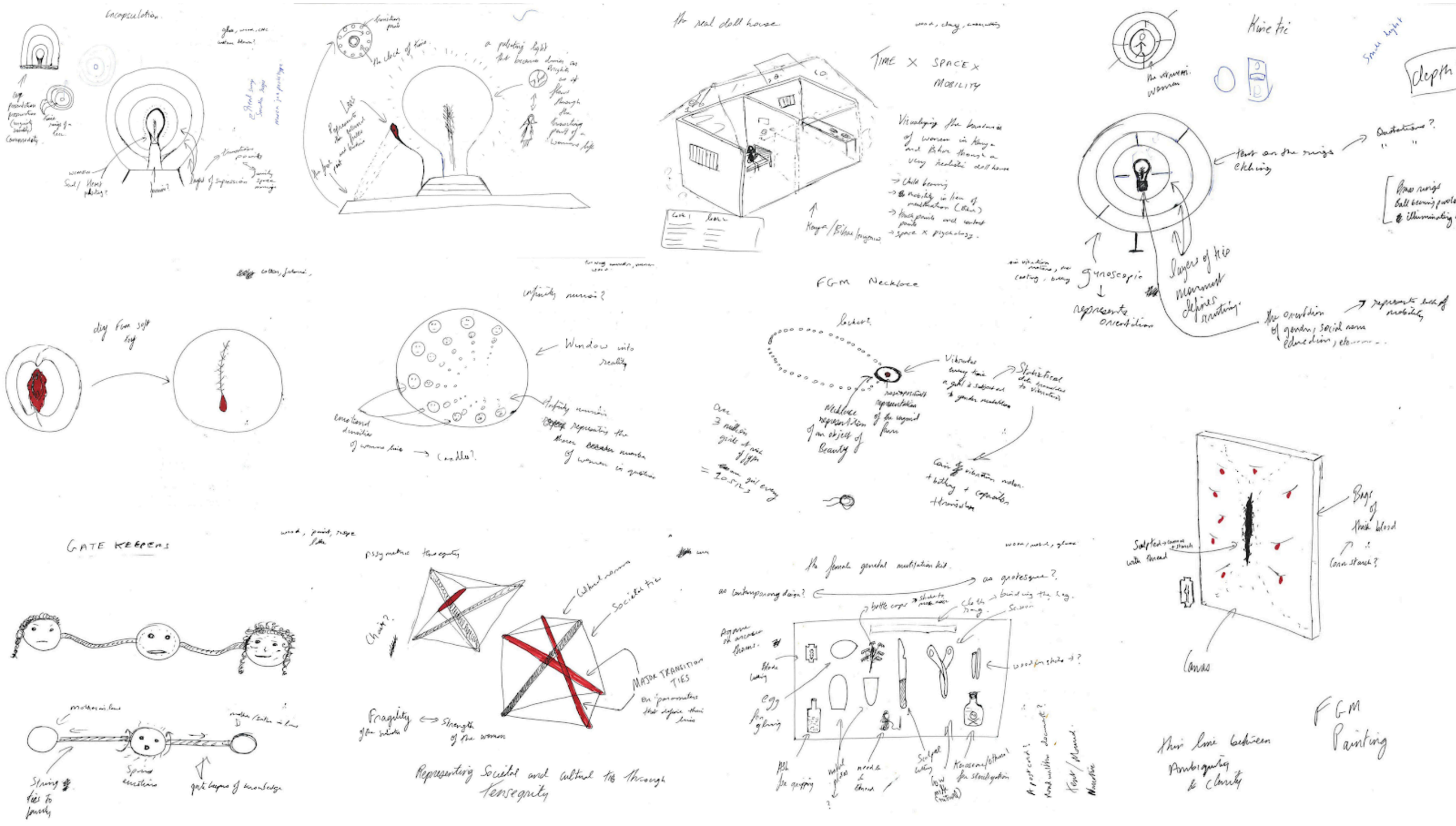


Figure 20. Sketches of my initial ideas for the Engagement Objects. A variety of mediums were explored.

Material & Process

One of the key requirements I had from the Core project before the inception of these Engagement Objects was that they needed to be of a size small enough to be transported with ease, and of a kind that can work as an invitational gift that supports the research reports and presentation decks.

Keeping this in mind, and through the inspiration of my example studies, my core materials of choice were in the realm of glass and ceramics. These materials were chosen largely because they are quite familiar to me, gave me the required freedom to form and experiment with, have a notion of value and preciousness to it, and can be worked with in detail in small sizes without losing contextual value. The choice of using glass and ceramics for the final Engagement Objects was supported by the feedback provided by the Core project.

The ceramic materials I used were porcelain and bone china. Both materials were sourced from Aalto University's Arts ceramic studio. The form explorations and prototyping were partly done at the Arts ceramic studio in Otaniemi, Espoo, and partly at M4ID's studio spaces. Material support and advice was provided by the ceramics studio master Tomi Pelkonen. The final ceramic Engagement Objects were prepared at the Aalto Arts ceramic studio.

The choice of using porcelain was based on the fact that porcelain has a high level of plasticity, allowing me to explore forms and details comfortably. There was also an ample amount of this material available to me at the time. Furthermore, porcelain, after high firing, is the strongest of the materials, and would come as a benefit in lieu of transportation and longevity.

The choice of using bone china was attributed to its white colour when fired. The material, while being a bit harder to work with due to its lower plasticity in comparison to porcelain, after firing is a lot more white than porcelain (which has a faint grey tone), and was an important feature for some of the engagement objects. The material is also weaker and more brittle than porcelain, or even glass, as explored in (monoliths example), allowing for some freedom of experimentation with glass fusions.

Terminologies

Plasticity - "The quality or state of being plastic. Especially: capacity for being molded or altered" (Merriam-Webster, 2019).

Kiln - "An oven, furnace, or heated enclosure used for processing a substance by burning, firing, or drying" (Merriam-Webster, 2019).

Firing - "The process of maturing ceramic products by the application of heat" (Merriam-Webster, 2019).

Mould - "A hollow container used to give shape to molten or hot liquid material when it cools and hardens" (Merriam-Webster, 2019).

Blowpipe - "A long metal tube on the end of which a glassmaker gathers a quantity of molten glass and through which he blows to expand and shape it" (Merriam-Webster, 2019).

Punty - "A metal rod used for fashioning hot glass" (Merriam-Webster, 2019).

Anneal - "To heat and then cool (a material, such as steel or glass) usually for softening and making less brittle" (Merriam-Webster, 2019).

Glassblowing - "The art of shaping a mass of glass that has been softened by heat by blowing air into it through a tube" (Merriam-Webster, 2019).

Cold Work - "Cold Work refers to methods that work with the glass in its cold state (not molten or moving). The commonly used cold work is Sandblasting, Engraving, Etching, Cutting, Grinding, Polishing, Painting, and Bonding" (Mostly Glass Gallery, 2019).

Undercut - "A space formed by the removal or absence of material from the lower part of something" (Lexico, 2019).

Glass as a choice of material opened up an array of conceptual and formistic possibilities, especially through experimentation and hybridization. I chose to strictly use clear transparent glass for all my explorations in an effort to keep the explorations consistent. This decision also helped create limits to my explorations and provided structure to my experimentation.
I perceived glass as a layer that encased an artefact, and at the same time affecting and changing the artefact due to the high heat and stress. I perceived this as an effort to create a separation between the artefact and the world outside, trapping it in space and time. This separation, thus, aimed at creating a critical distance between the artefact and the viewer, presenting the artefact with a lack of agency, mobility, accessibility and usability.

The glass was processed through hot blowing, kiln casting and cold working, and was performed at Aalto Univeristy's glass studio in Otaniemi, Espoo.

Most of my glass blowing was done with the help of glass artist Ocum Erdem.

All of the glass blowing processes involved an attempt to capture artefacts in glass by :

- Blowing a glass bubble and pushing the bubble onto an artefact.
- Pouring hot glass onto the artefact, or sandwiching it between two molten layers of glass.
- Forming a (hot) ball of glass, trapping and working an artefact into the ball, ensuring it stays trapped with additional gathers and finishing it with a final layer of gather to form a glass ball or egg with the artefact (or its abstraction) in it.
- Finishing the pieces with cold work.

My process of kiln casting involved :

- Preparing moulds made out of silica, plaster and glass fibre at the Arts ceramic studio.
- Loading pieces of glass into the mould along with the artefact (placed typically in the volumetric centre of the mould cavity), and casting it based on the program in figure 21.
- Finishing the pieces with cold work.

These processes will be further elaborated in the chapters that follow.

Figure 21. Kiln program used for glass casting.

Step	Rate (° C / h)	Temperature (° C)	Soaking time (min.)
1.	30° C/ h	100° C	120 min
2.	100° C/ h	300° C	60 min
3.	150° C/ h	600° C	30 min
4.	200° C/ h	880° C	60 min
5.	FULL SPEED	550° C	30 min
6.	5° C/ h	470° C	60 min.
7.	30° C/ h	200° C	
End	Free cooling to 50°C		

ENGAGEMENT OBJECTS - 5

This chapter expands on three ideas and their development that represent the context of this thesis through artefacts. It describes the processes involved, failures and provides an analysis of the outcomes and purpose of these artefacts.

Encapsulation

The concept of encapsulation aims to illustrate the topic of agency and societal restraints, and in relation to this, the topic of the taboo of menstruation, both of which are covered earlier in the context of this thesis.

My approach to explore this topic and translate it through artefacts was by experimenting with ceramic forms and attempting to encapsulate them in glass.

An exploration of ceramic forms

When thinking about these issues and hardships that women in India are faced with, and about the forms and traits of the ceramic objects I am morphing, my thoughts lead me towards the ideas of :

- Strength.
- Purity.
- Community.
- Femininity.
- Intergeneration.
- Family.
- Children.
- Immobility.
- Hardships, Stress, Pressure.

As I started to explore these ideas through ceramics, it started to become evident that I was not limited to expressing these ideas through form. The choice of working with ceramics gave me the opportunity to explore these ideas through the whole process.

With this in mind I considered the use of materials like porcelain and bone-china as a representation of strength and purity, respectively. My explorations of form were centered around community, intergeneration, family, children and immobility. Hardships, stress & pressure were expressed through the process of high firing (up-to 1140°C) the pieces in a ceramic kiln.

Therefore it is not just the artefact but the process of its inception that is fundamental to the topic they are translating. Moments of this process are illustrated in figures 22, 23, 24, 25 and 26.

Figure 22. Details of the ceramic forms. Sculpted and dried before high firing.

Figure 23. Ingredients for bone china at the Aalto University's Arts ceramics studio.

Figure 24. Ingredients for bone china being mixed in the ceramics studio lab.

Figure 25. A set of sculpted ceramic forms to be high fired.

Figure 26. Ceramic forms in the firing kiln.

Glass, the Encapsulator

Once the ceramic forms were formed and fired, I attempted to capture them in glass through glass blowing with the help of glass artist Orcum. Most of the forms I attempted to capture in glass were those that were made from bone china for the fact that it was a softer material than porcelain and has a stronger tone of white. I was previously aware that porcelain is much stronger than glass and that, while there was merit to exploring a few iterations of its fusion with glass, it would most definitely crack the glass without facing any damage (except some charring) at the end of the violent process. Therefore, through this softness of bone china, I hoped for a more expansive dialogue of tensions between the material and glass, where the encapsulator and the encapsulated are both affected by their interaction and in their journey through the process.

There were two different approaches to performing this glass and ceramic fusion - Layering/ Sandwiching and Glass Blowing.

Layering & Sandwiching

This approach involved pouring hot glass on the ceramic form in an attempt to create a thick fluid layer of glass that encapsulates the ceramic form. Some of the iterations involved sandwiching the form between a top and bottom layer of glass. Figure 27 illustrates this process. This was done by heating the ceramic form on a metal table with a flame torch while Orcum poured hot glass that is collected from the glass furnace using a ladle. The fusion was then moved immediately into an annealing kiln set at 500°C and slowly annealed over night down to room temperature. In the process of sandwiching, the process was the same, except that a layer of glass was first poured onto the metal table, upon which the ceramic form was positioned and both materials were heated with a flame torch. The resulting pieces were then cold worked to a smaller size. Moments of this process are illustrated in figures 28, 29, 30 and 31.

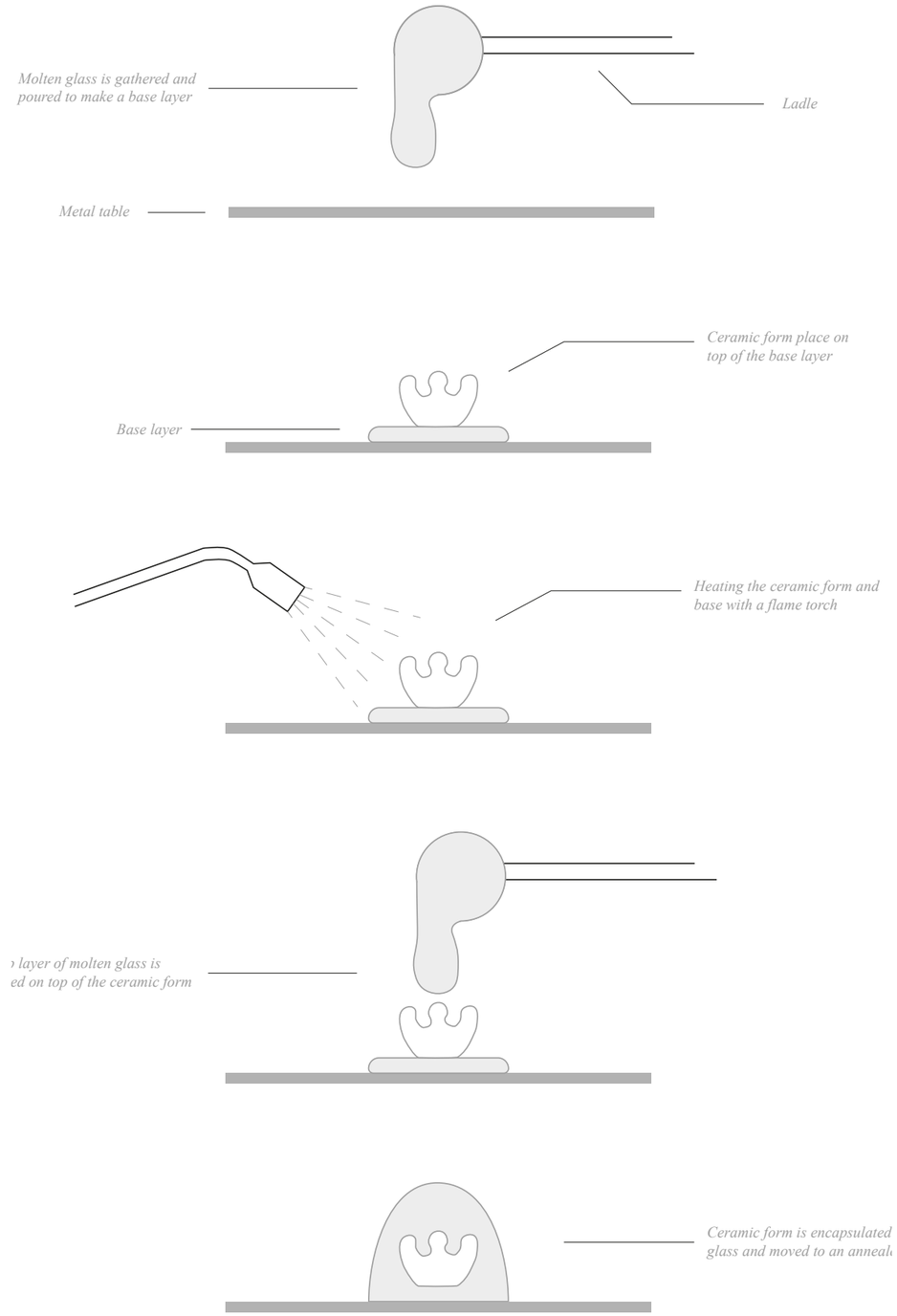


Figure 27. A diagram depicting the process of encapsulating the ceramic form through sandwiching between glass.

Figure 28. Bone china form after high firing, place on a metal table.

Figure 29. Heating the bone china form through the process of encapsulation in glass.

Figure 30. The encapsulated bone china form before being moved to the annealer.

Figure 31. The encapsulated bone china form before after being annealed and cold worked.

Glass Blowing

This process involved capturing the ceramic form by blowing a glass bubble relatively large in size in comparison to the ceramic form (15-20 cm in diameter), and pushing the bubble onto the form from above while the glass is still hot and formable. The fusion of the form with the glass would take place through a mechanical lock where the glass surface flows around the ceramic form's soft undercuts, locking it in place. After this, the fusion is lifted, as it is still attached to the blowers pipe, cut and transferred to the annealer for an overnight annealing. This process is similar to the third example study in chapter 2, page 41.

After the first few iterations, the artefact was quite evidently in a vase like form due to the blowing hole from the glass blowing pipe. This was something that required circumvention as it in a way glorified the artefact and presented it as a functional object, which was contradictory to its purpose. Therefore, future iterations involved an additional step before the glass bubble was pushed onto the ceramic form, where the bubble was transferred from the glass blowers pipe to a rod, and the blowing hole in the glass was sealed shut. This effectively created a glass bubble that was completely closed and when pushed onto the ceramic form, looked like a dome shaped encapsulator. These forms, and the dome shape were further cold worked to a smooth and clear finish. This process is illustrated through a diagram in figure 32 with moments illustrated in figures 33, 34, 35 and 36.

In both these approaches, and in almost every case, the fusion generated strong internal tensions, and both the materials cracked. With glass and porcelain fusions, the glass cracked without affecting the porcelain. In the case of blowing, the glass would initially survive the process without any cracks, at the cost of the bone-china cracking. But over time, it was evident that there were internal tensions unseen to the naked eye, and the glass would eventually crack. In some cases with blowing, the bone-china form would crumble and flake away, leaving an uncracked glass dome shaped by the form.

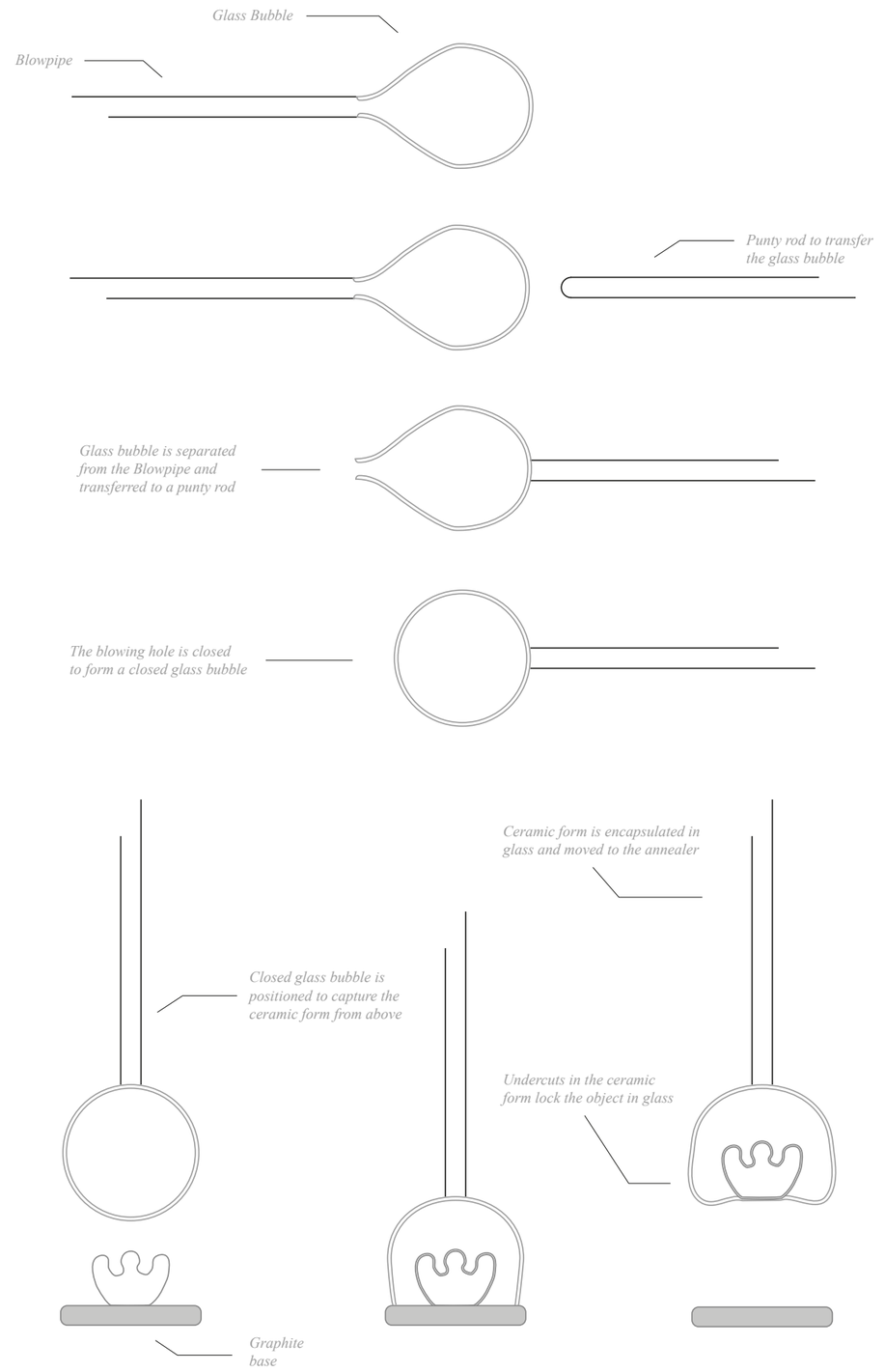


Figure 32. Diagram depicting the process of encapsulation through glass blowing.

Figure 33. Forming a glass bubble. The Encapsulator.

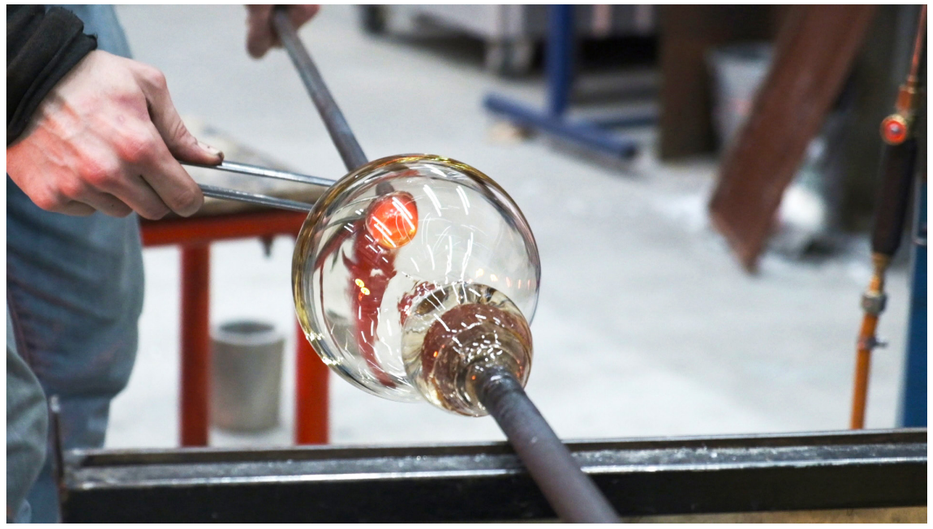


Figure 34. Transferring the glass bubble from the blowpipe to the punty rod to close the blowing hole and form a completely closed bubble.

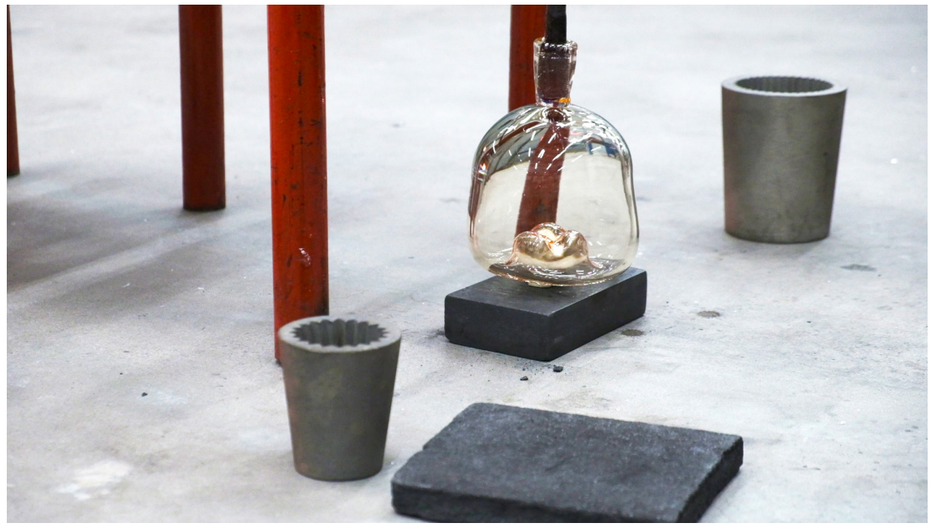


Figure 35. Encapsulating the ceramic form in the glass bubble. The glass flows around the surface of the ceramic form and into the undercuts, locking the form in the glass,

Figure 36. The encapsulated ceramic form locked in place, to be moved to the annealer.

Analysis

The process of creating these artefacts were a fascinating curve of learning. These were my first attempts at a finalized approach to the creation of the engagement objects, and a personal interpretation of this process is as follows.

From the figures in pages 70, 74 and 76 it is visible that this process explored the life journey of a pristine and pure ceramic form, that begins with its creation and end's with its encapsulation. The process resonates with the life journey of women in the communities that are central to this discussion.

The ceramic form is born from softness and tenderness. It is nurtured and formed, it is sculpted through context, meaning and life. In the case of bone china, the material is born from an amalgam of minerals in their powdered state, from earth. The form is then subjected to a much harsher, high heat environment of the kiln. This small space structures it, shapes it and orients it for the life it is about to embark on. If nurtured correctly and with the right form, the ceramic piece survives this heated constriction of space to become much stronger and versatile. It shines brighter and is vivid.

Following this is the process of its encapsulation into glass. This process is exciting and is a turning point in the form's life journey. The form receives a shell that provides structure. As a material now fused, and for a short period of time, it is in a completely new environment, enclosed but malleable. The internal tensions then rise, and there is a fight for agency as the two materials anneal. The glass is evidently stronger than the ceramic form (bone china), and the latter succumbs to its shell. Here-on, the form has cracked but is held together and is dependent on its glass shell. If the two are ill fitted, the ceramic form crumples under, and leaves behind a phantom form shaped into the glass.

On the other hand the glass shell is transparent and context-less, and relies largely on its ceramic core for meaning and purpose. There is a dialogue between the two, an interdependency. The tensions still remain. Eventually, the glass too succumbs, and cracks as the ceramic form yearns to break free. Each piece then tells its story, contextualized by the process of its conception, the form in the centre and its shell outside.

Future Fossils

As my thinking flowed through the concept of encapsulating artefacts, another idea began to emerge. This idea was centered around the creation of a set of encapsulated artefacts that represented objects that belong to debilitating practices, as a thing of the past. Essentially, my approach to the idea was to fossilize objects, concepts and environments of the present as a crafted reflection of the 'past' in a speculative and hopeful near future world where many of the issues covered earlier are obsolete. The Lexico Oxford Dictionary defines the word fossil as "*The remains or impression of a prehistoric plant or animal embedded in rock and preserved in petrified form*." (Lexico, 2019).

This idea uses a speculative design approach and crafts a fictional future narrative where it is presumably 2030, we have achieved our SDGs, and are viewing artefacts that were once associated with gender based violence, gendered socialization, unhealthy abortion practices, poor resources and archaic medical equipment. The idea aims to represent these issues in a hopeful and positive light, while being current and grounded in reality.

This idea started off with a more literal presentation of an object that has been deemed to be a fossil rather than the creation of a fossil, and was prototyped in low fidelity with four examples based on two topics, covered in chapter 3 - FGM and the taboo of Menstruation.

In this prototype, the associated objects were encased in glass domed vitrines and presented as :

- A collection of tools and objects used in the practice of FGM.

- A representation of a piece of fabric from India that is presumably used for menstruation and buried under ground.

- A sock filled with ash on a bed of ash.

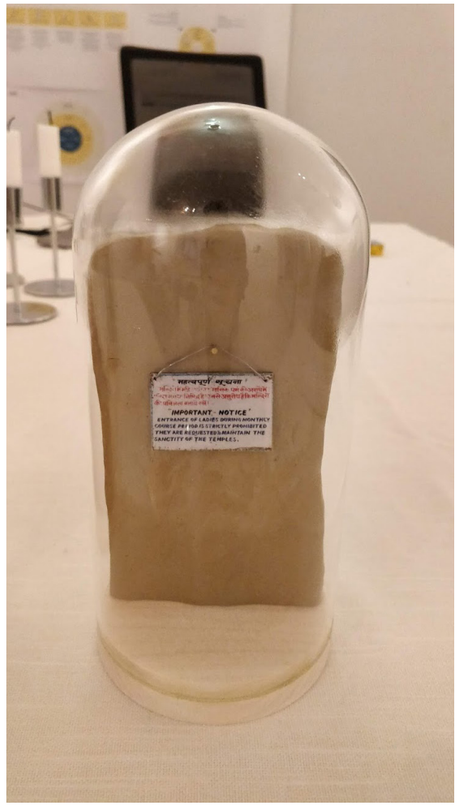
- A modelled mud wall with a metal sign nailed to it. The sign depicts a printed with an image of a real sign, one of many, found outside some temples in India that says (in both Hindi and English) - " Important Notice - Entrance of ladies during monthly course period is strictly prohibited. They are requested to maintain the sanctity of temples" (Agnes F., October 2018)

These pieces are depicted in figures 37, 38, 39, 40 and 41. As I was working on this approach to illustrate the subject matter and the idea, I felt that, while it presented the subject vividly, it presented their respective issues and practices in a rather 'matter of fact' way. After discussing the concept further with my advisor, Sandra Viña, and gauging her feedback, we concluded that this approach lacked a conceptual depth the we were looking for, and could even be perceived as a sort of 'showcasing' of these debilitating objects, environments and concepts. As my thesis supervisor, Julia Lohmann, later mentioned, one could wonder how much of a fossil it is if the glass vitrine could simply be removed, and the artefact encased in it, accessed and used, forgoing the concept.

My approach to reattempting this was to take a step back and analyze the subject matter to come up with an array of objects that in some way relate to the issues and practices of the topics in the context of this project. The idea brimmed towards an act of fossilization of the objects rather than perceiving them as fossils. To create a fossil meant that I needed to petrify, embed and preserve the objects in some form. Thinking of glass as this petrifier and preserver, an approach to a fossilization was blowing and kiln casting these objects in glass in an effort to capture them or their abstraction in space and time, and therefore required that the objects be chosen based on their materiality, metals being the best, to survive the high heat and stressful process of glass forming.

These objects and the context they represent are covered in figure 42. The future fossils and their associated context are presented in a photo book in addition to this thesis

Figure 37. The first iteration of Futur Fossils. From left to right, A rag half buried in ground, a sock filled with ash and a depiction of tools used in FGM.



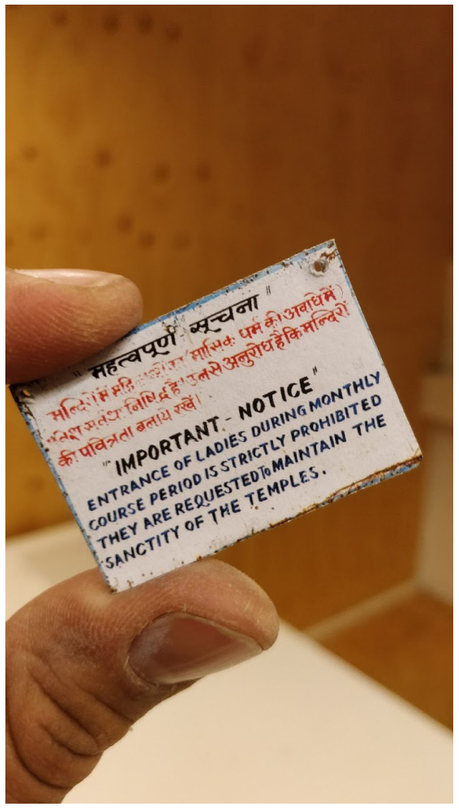


Figure 38, left and 39, right. A modelled clay wall with a notice board.

Figure 40. An exploration of the modelled clay wall depicted as an eroded and broken wall.

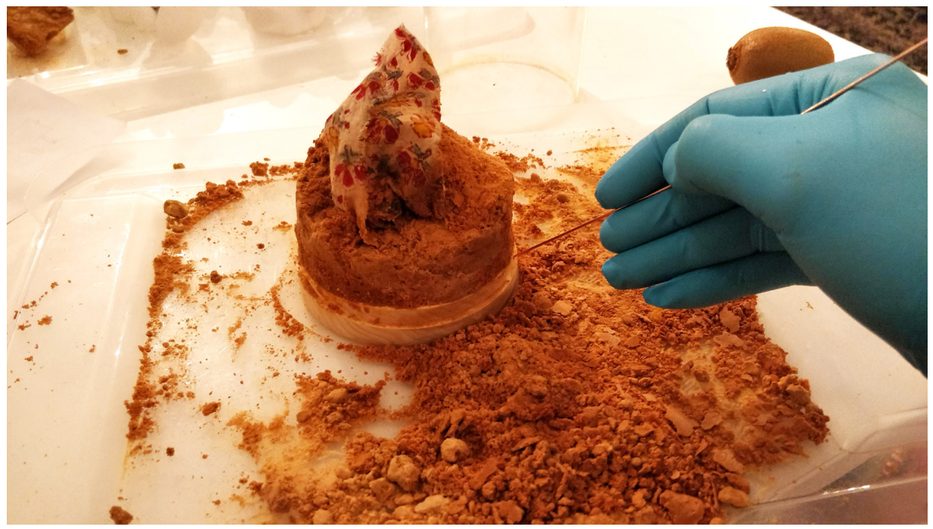


Figure 41. Modelling the rag buried in ground.

Scissor and Blade -
A set of objects that represent tools used in Female Genital Mutilation
A set of objects that represent archaic and unsanitary medical equipment

Lock and Key
A set of objects that represent a lack of agency and mobility, and restrictions set by society

Cola Bottle Caps and Can Clips
A set of objects that represent harmful, self induced abortion practices

Coins from Kenya
A set of objects that represent Transactional Sex

Cola Can
An object that represents harmful, self induced abortion practices

Figure 42. The Future Fossil objects and their context. Eight different types of objects were fossilized in glass.

The process of fossilizing these objects in glass was relatively experimental and with little expectation of what the outcome might be. The process in many ways is similar to those covered in the fourth example study in the second part of chapter 2 (page 42), and served as a direct inspiration. There were two different methods to approaching this - glass blowing and kiln casting.

Glass Blowing

The process of fossilizing these objects through glass blowing was done in two different ways. This process is illustrated as diagrams in figure 45 and 46.

Approach I

The glass artist, Orcum, gathered a small amount of glass and worked it to create a solid ball. He then worked it to make the outer edge concave. At this point, I pushed the object I intended to capture into the middle of this concave surface and let the hot glass fuse with it so that it stays attached (figure 44). in some cases, like with a blade or a coin, Orcum would create a small cavity on this surface, like a slot, where i can secure the object. After this, Orcum then gathered some more glass and proceeded to work it into a ball or an egg form. This was then transferred to an annealer.

Approach II

This process was done by layering and sandwiching, and was similar to the same process covered earlier in the process of Encapsulation. Here, to control the final form of the pieces, the process involved using a graphite mould that was either a truncated cone or a cube, with both ends open. This was laid onto a metal table. Orcum first poured a base layer of glass into the graphite mould, while I kept the mould and base hot using a flame torch. I then dropped or fixed the object I wanted to capture onto the centre of this base layer. Orcum then poured a top layer of glass and used a separate rod to catch the sandwiched piece. The cylindrical piece was worked into a ball while the cube piece's surface was left untouched.

In both approaches the outcomes were positive. In most cases, especially with approach I, the objects were fossilized successfully. With approach II some of the glass sandwiches would split and form two separate pieces with interesting results. Moments of this process are illustrated in figures These processes and results are analysed later in this chapter.

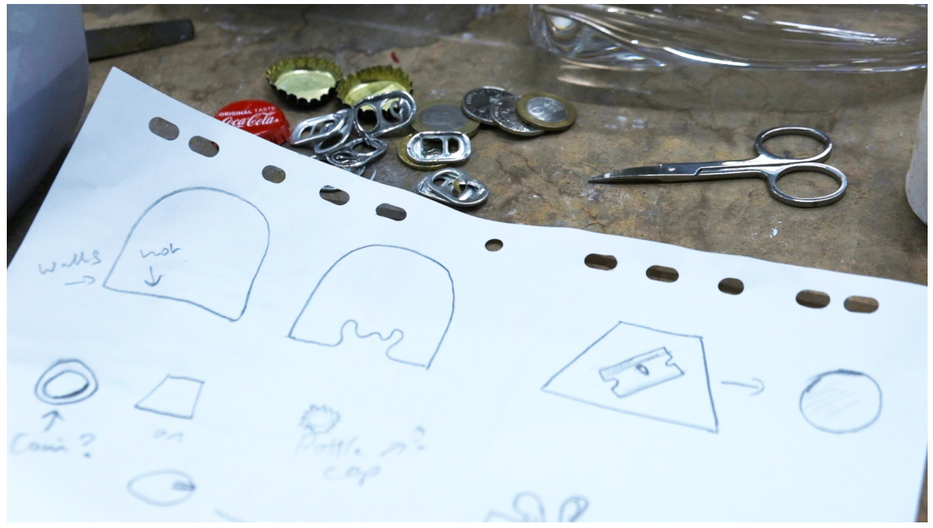


Figure 43. Notes, drawings and the Future Fossil objects at the glass studio.

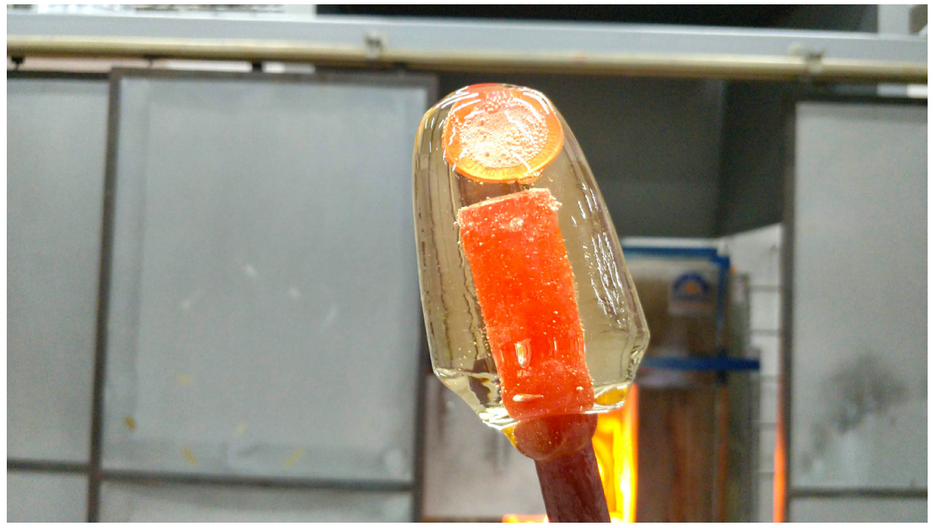


Figure 44. A coin from Kenya, representing transactional sex, is captured in glass through apporach I.

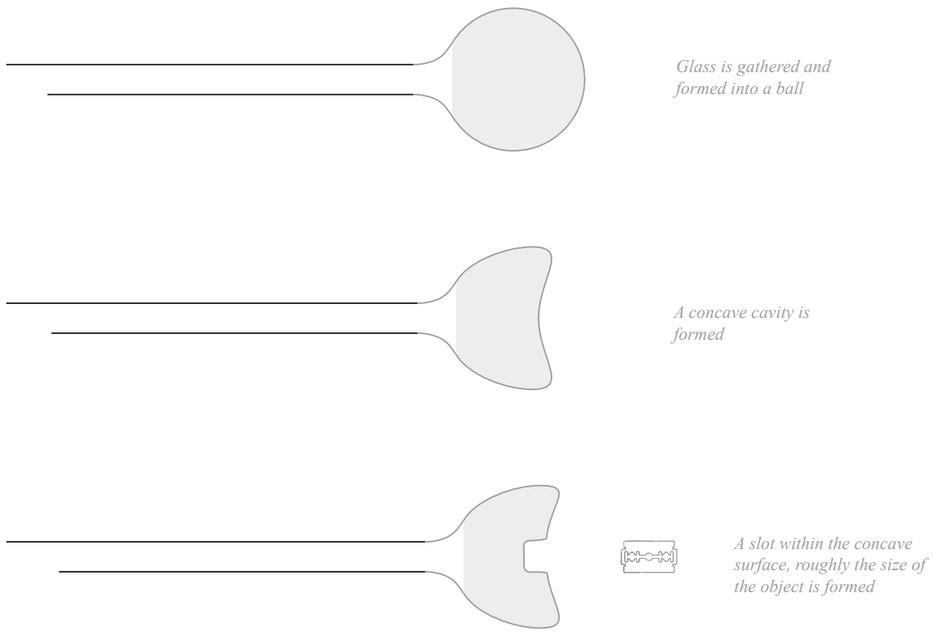


Figure 45. The process of embedding an object in glass through approach I.

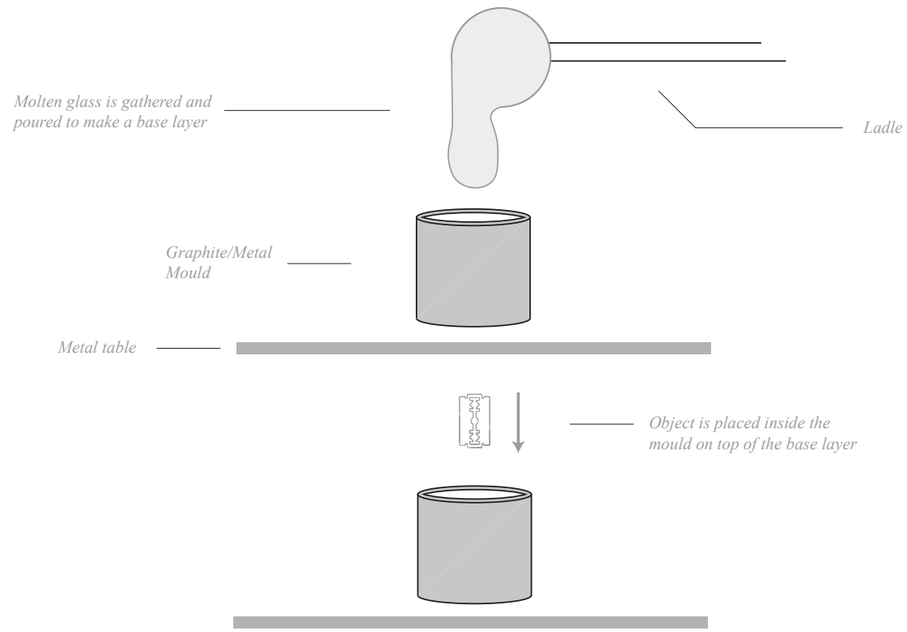


Figure 46. The process of embedding an object in glass through approach II.

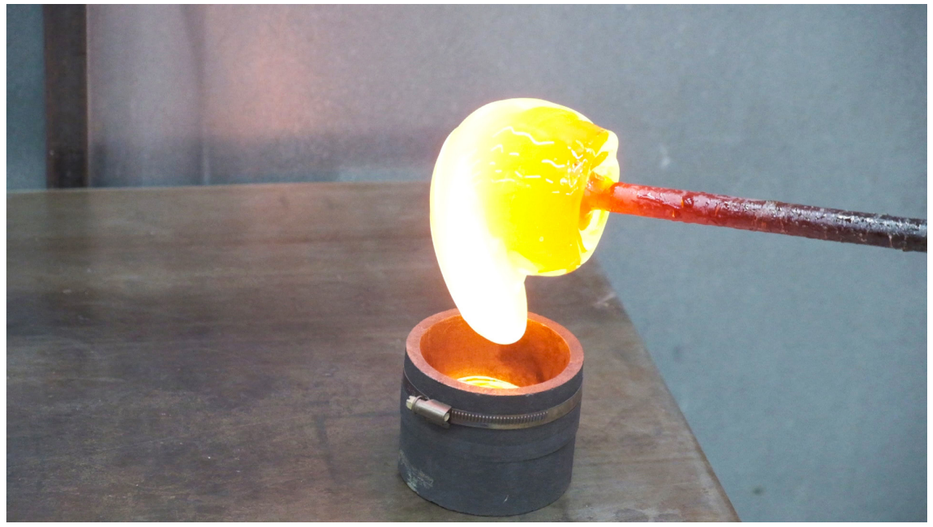


Figure 47. Pouring the second layer of glass to sandwich the Future Fossil object in between two layers of glass, in a mould.

Figure 48. The Future Fossil object embedded in glass. The metallic object has minimal deformity and oxidization due to the fact that the glass cuts out any contact with air as it encases it.

Figure 49. The Future Fossil is removed from the mould and captured by a punty rod.

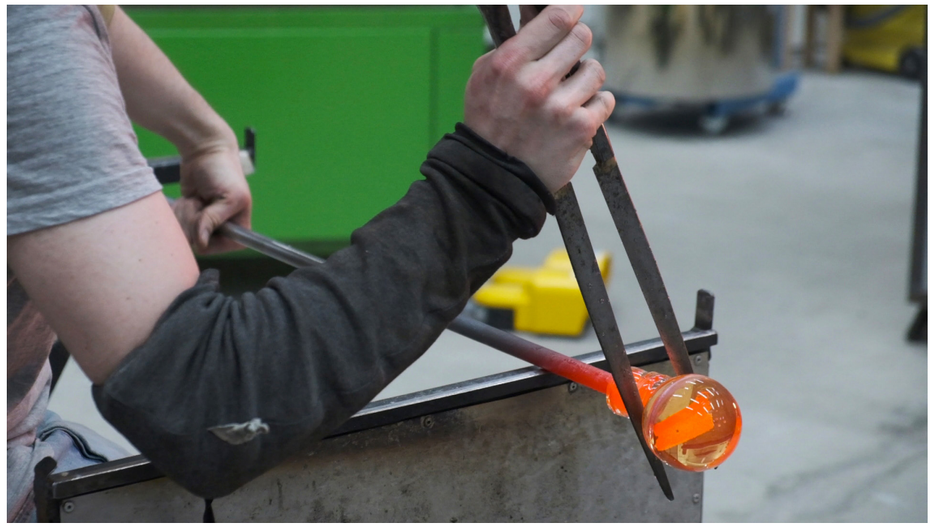


Figure 50. The Future Fossil being worked into shape and prepared to be moved into the annealer.

Kiln Casting

The fossilizing of these objects through kiln casting was done using the glass kiln in the Aalto Arts glass studio and the process is as follows.

Casting the objects in glass required an appropriate mould. I decided to go with a few different sizes of cubic and cuboidal forms that were generally sized to fit the palm, with an aim to have a paper weight like look and feel to it. the smallest one was around 50mm x 50mm x 50mm and the largest one was around 100mm x 50mm x 50mm.

The reason for using cubic and cuboidal forms was to make the mould making and cold working process easier and faster. Post casting, the glass objects generally have a very rough surface that requires a large amount of cold working and polishing, and especially in this case with clear glass, it was imperative that the fossil inside the glass was visible.

To create the mould I first cut these cubes and cuboids out of foamboard and sanded the surfaces to the size for a smooth finish. I also ensured that the there was a slight taper in the overall shape for ease of removal from the mould preparation.

The mould preparation involved creating a mix of plaster, silica and water with a glass fibre lining, and the Styrofoam forms were used to create the negative spaces. They were then dried in a drying chamber for a few days before they were ready for casting.

The casting process involved loading the mould with a base layer of cold and broken clear glass pieces, placing the object in the volumetric centre, and topping it with another layer of clear glass pieces.

The mould was then loaded into the kiln and casted using the program covered earlier in chapter 4, figure 21 (page 65).

After the kiln had cooled down, the moulds were carefully removed, laid on a table and excavated to reveal these casted glass forms with the objects or their abstractions inside them. The surface of the glass, as expected, was very rough and crusted with plaster, with no visibility into what was held inside them.

This led me towards a long process of cold work and polishing in an effort to reveal the fossils, and was a rewarding process. Moments of this process is illustrated in figures 51 to 59, and are analysed further in this chapter. The final objects are illustrated and can be refered to in a separate photobook along with this thesis.

Figure 51. A kiln casted Future Fossil right after being removed from its mould.

Figure 52. Foamboard cuboids positioned to form the positives for the mould preparation. A separation agent is applied to the foamboard to make it easier to remove from the mould when it is dry.

Figure 53. The foamboard cuboids are lined with glass fibre. The plaster & silica mix is poured to form the mould. Glass fibre is used to provide structural support and to keep the mould together when it cracks during the casting process.

Figure 54. The plaster moulds. They need to be dried for a few days to minimize their water content before they can be used for casting.

Figure 55. The Future Fossil objects in the mould spaces. The mould is loaded with broken pieces of clear glass along with the objects.

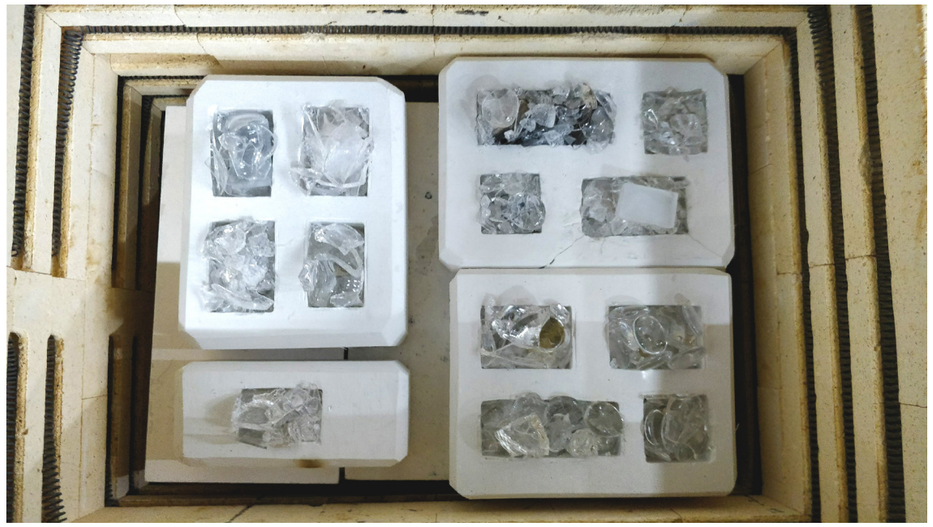


Figure 56. Moulds placed in a Kiln at the glass studio, to be casted.

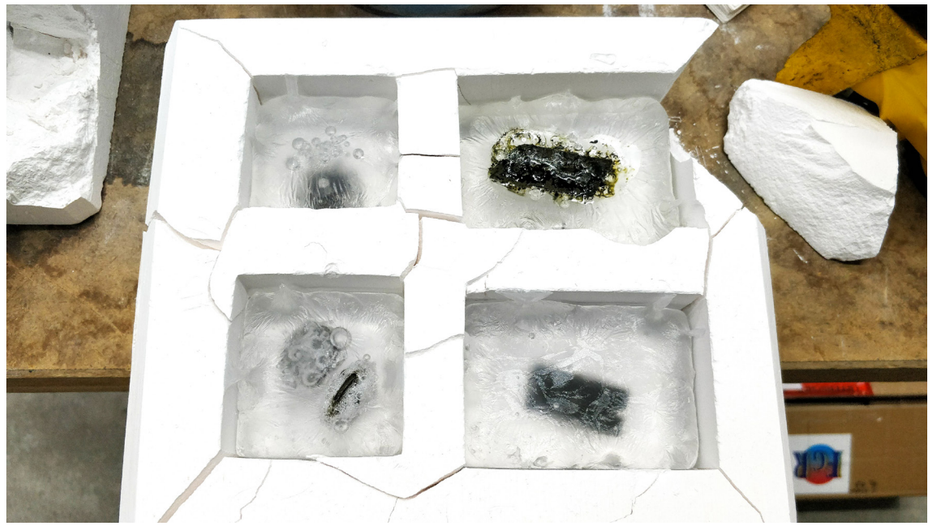


Figure 57. The plaster moulds after the casting process. The mould is fragile, brittle and powdery in nature. The mould is broken and the casted Future Fossils are extracted, dusted and washed.

Figure 58. Grinding the casted Future Fossils, a step in cold working glass. After casting, the fossils have a rough and hazy exterior and need to cold worked to reveal the fossilized object.

Figure 59. Sanding the Future Fossil on a belt sanding machine, a step in the cold working process.

Analysis

"This set of objects or artefacts are a yearning for a time when debilitating practices are a thing of the past. They are a wish and an affirmation that women's sexual and reproductive health journeys be spared the life-threatening consequences they encounter today" - Text from the Core project's web article on the Engagement Objects. (Core, 2019).

The process of creating these future fossils was quite experimental and rewarding. By rewarding, I mean that the glass had successfully embedded the object in a way that the object is inaccessible, has been affected by the violent high heat process, and can be perceived as an object of the past - an object that has corroded, oxidised, decayed and is defunctionalized. Some of these objects oxidised to a point where their original form is not distinctly visible and what remains is an abstraction of what they used to be. The visuality of this corrosion and decay in the object has two roles to play in representing the topics in the context. It firstly presents the issues in relation to the objects vividly. A rusty corroded object or instrument is unsanitary, rough, unsafe and harmful. Secondly, it represents a time in the past. Decay and corrosion promote its defunctionality, representing them as dated and unusable. In most cases these objects are petrified by their glass encapsulator with no access to the ecosystem outside, and will remain as they are, fossilized, for the foreseeable future.

Glass being the shell that fossilizes the object plays an additional and important role in the way the fossils are viewed. While separating the object from the viewer, it adds a fundamental layer of dynamism and movement. The object can be viewed from any angle, but while doing so, the object appreas as distorted and morphed. It appears as active and alive. Yet, this object is locked away and is unable to interact with the world outside. Objects that have oxidised and abstracted, appear all the more dynamic and mobile. They turn to gas in an effort to move outwards and escape, before that glass encases them completely.

The process of the creation of the Future Fossils is akin to that of most casted fossils. An object of the past has gone through the process of encapsulation, high heat, pressure, internal tensions and decay. In the case of kiln casting, the process of accessing the casted glass is akin to the process of fossil excavation and archaeology. The Lexico Oxford dictionary defines archaeology as "the study of human history and prehistory through the excavation of sites and the analysis of artefacts and other physical remains"(Lexico, 2019). Retrieving and viewing the fossils involved breaking open the plaster and silica mould, separating the glass from the mould particles and dusting it. Further processing then included cold working which involved a series of steps with grinding, sanding and polishing the glass to reveal the fossil inside.

Together, the fossil and its glass encapsulator, form an engagement object. Here the glass encapsulator plays a key role in presenting its fossil as an object with a significant past. These objects are then contextually rich through the story they tell about their past, and how they were involved in debilitating practices and issues presented earlier in this thesis.

Objects Translated

"These objects are a translation of the complex valences expressed by women for each transition point on the life course. They are an attempt to grasp this complexity – the connections, ruptures interstices in women's lives as well as the biological, demographic, historical, psychological and socioeconomic contexts in which they unfold." - Text from the Core project's web article on the Engagement Objects. (Core, 2019).

While the creation of future fossils were at their final stage, a fundamental aspect of the Core project needed to be translated - The life journey. I alongside Sandra Viña, explored and formulated ways to represent the life journey of women in the aforementioned countries. The finalized idea that we agreed on was to depict each transition moment through a ceramic form. These forms were partly an extension of forms and processes explored in Encapsulation, and partly new explorations done with bone china and porcelean. The explorations and finalized forms were ideated and explored in collaboration with Sandra Viña. These explorations are illustrated in figures 60, 61, 62 and 63.

The Core project formulated seventeen transition moments, as covered earlier in chapter 1. These seventeen moments served as inspiration for an array of explorations, with over fifty forms explored by me and Sandra.

The ceramic explorations were then finalized and appropriated to their transition moment. These ceramic pieces, while being pristine, white and pure, were limited to translating their respective transition moment only through their form. To break this limitation, the idea was to hybridize the pieces by adorning and bejewelling them with metal, fabric and plastic trinkets. This was done in an effort to equip each form and their transition moment with a stronger voice and individuality. It gave the moments value, uniqueness, beauty and language to further articulate its position. These trinkets were inexpensive and presented their value through humility.

To hybridize the finalized ceramic forms, they were first marked and spotted with tiny holes that served as place-holders, before they were fired. After firing, the pieces were adorned with the trinkets by tight fitting and glueing them with adhesive.

These seventeen forms and the transition moments they translate are illustrated in figure 64.

Figure 60. Ceramic form explorations at the Aalto Arts ceramic studio.

Figure 61. Mapping the ceramic forms to their transition moments.

Figure 62. Adorning the ceramic forms with trinkets. Part of the form explorations and the adornment of the forms were was done by Sandra Viña.

Figure 63. The ceramic form explorations along with the Encapsulations and Future Fossils.

Foetal development

Birth

Infancy

Preadolescence

Menarche / puberty

Adolescence

Sexual initiation

Family planning

Marriage & partnership

Pregnancy

Prenatal care

Labour & delivery

Postnatal care

Motherhood

Menopause

Grandmotherhood

Death

Figure 64. The Objects translated and the transition moments they represent.

Journey

The Engagement Objects were aimed at meeting two specific goals -
- To make the experience of engaging with the project's research more immersive.
- To be presented at the Core project's Global Advisory Board meeting.

The Core project's Global Advisory Board comprises of experts and practitioners in the field of public health, social service and design. The project presented the progress and findings of their research to the advisory board on the 26th of March, 2019, in London. This meeting then focused on seeking feedback and strategic advise from the attendees as the Core project moves to its Create stage, where they being to prototype solutions and test their work. (Core, 2019).

During this meeting, the Core team presented a selection of Engagement Objects to the members of the board. The collection of seventeen pieces from the Objects Translated were presented as the life journey of women mapped by Core's research. The Future Fossils were presented as invitational gifts to the members of the board.

These Future Fossils now live on with a purpose beyond the context that they were moulded by. They serve as a meaningful representation and keepsake to an important event for the Core project and their work. An event that shapes the future steps that the Core project embarks on as they move to their Create stage, where they begin to prototype solutions for the four countries.

The Encapsulations, Objects Translated and remaining Future Fossils now serve as a set of exhibition pieces at M4ID with the purpose of sparking discussions and engaging people in the discourse of SRH and the Core projects ongoing research.

Objects Translated were also later exhibited as a part of M4ID's participation of the Core project at the Women Deliver conference (Core, 2019). The conference is centered around gender equality and the health, rights and well-being of girls and women, and was held in Vancouver from 3rd to 6th June, 2019.

Figure 65. A Future Fossil being presented to a participant at the Core project's Global Advisory Board meeting. Image by the Core project.

Figure 66. Objects Translated along side quoted transition moments they represent. (Core,2019)

CONCLUSIONS - 6

This chapter concludes the thesis with a discussion of the process and work. It elaborates on key learnings and findings, and expresses the limitations faced through the work. It also outlines a possibly different approach to the project.

Discussion

This thesis aims at documenting and analyzing the creation of a series of contextually embedded artefacts, The Engagement Objects, that serve as a representation to the Core project's research process and findings at M4ID oy. This project took place during my internship at M4ID over five and a half months from October, 2018 to March, 2019, and was my primary task at the company. This thesis document is written during the months following the culmination of the project and my internship. It serves to represent my position, research and process during the course of the project. My approach and process presented in this thesis is one of many ways this project could have ensued, and is not an all inclusive approach to the creation of these artefacts.

The process of creating these artefacts started with a fairly open brief. At this stage I was presented with the outcomes of the Core project's Discovery stage, the Life Course approach and the life journey of women in their four countries of focus - Kenya, Tanzania, Nigeria and India. Herein, I was given the opportunity to explore an array of methodologies towards the creation of artefacts that translated significant, provocative and impactful aspects of their findings. Since this was a fairly broad starting point, I allowed my personal experience with art and design to direct my ideas and inspirations. These ideas were largely influenced by my learnings over the past two years as a Master of Arts student at Aalto University. They were centered around the realms of new media, experimental design, material design, applied arts and discursive design.

My topics of focus, extracted from the Core project's findings, were initially based on my personal inference of what I deemed was significant, provocative and impactful. These topics were then guided, narrowed and confirmed through valuable feedback from the Core team members. Feedback from the Core team also played an important role in helping me shape my ideas with an emphasis on impact, practicality, positivity and the goal of these artefacts. Through this feedback, and preliminary prototyping, I found that using the medium of glass and ceramics gave me a consistent range of narrative elements that I could use in different ways to represent the range of topics in the context. I also found that glass and ceramics, at the scale, size and form that they were used, had a sense of humility and beauty as a material. They were strong, and yet brittle, delicate. These findings lead me to continue my ideation and prototyping in the realm of experimental design, glass and ceramics. Armed with strong topics of focus and a medium for creation, a structured and finalized approach to the creation of the Engagement Objects ensued and resulted in the birth of Encapsulation, Future Fossils and Objects Translated. These three sets of objects had a variety of process intersections at the beginning of their creation. The process of creating the Encapsulation pieces was my first exploration in the medium of glass and ceramics in this project. Engaging with porcelain and bone-china to form contextually inspired sculptures helped in developing a language of expression and furthered my understanding of the material. This then influenced the formation of the pieces for Objects Translated. Encapsulating the ceramic forms in glass furthered my understanding of the materials, their interactions, limitations and the metaphorical meanings that can be inquired through the process of their creation. Techniques like layering and sandwiching the ceramic form, and forming a closed bubble were new learnings for me. These helped in my explorations for the Future Fossils. Embedding objects in glass to form the Future Fossils led to an array of learnings in experimental design and exploring glass as a viewing lens. The process of embedding the objects was specific and was performed through different experimental methods. The outcomes led to a realization that glass can add layers of movement and activity to the visuality of the object it captures, providing the viewer with different perspectives to this object and its significance.

A key learning for me in this project was that the form, material and process of these objects are equally important in the communication of the topics in the context of this project. Working while ideating with these pieces, and reflecting upon their outcomes was a very personal and rewarding experience. It lead me to a realization that the topics and their narrative can be evoked through the intense process that materials like glass, ceramics and metals go through. This realization added to the array of narrative elements that I could use to embed sensitive topics and context within these artefacts. These narrative elements were therefore centered around form, fusion/hybridization, process, visuality, perception and touch. An amalgam of this formed an Engagement Object.

Limitations & A Different Approach

A key limitation to the process and resulting outcomes of this project was attributed to my role and position. Through the duration of this project and my time at M4ID, I was based in Helsinki and working with the field research that The Core team conducted. The team members frequented the four countries of focus and provided me with the opportunity to further my understanding of the context and to source materials for my use with developing the Engagement Objects. An example of this are Kenyan coins that were fossilized for the Future Fossils. However, the time and resources were limited for me to personally travel to the Core project's four countries of focus. Therefore, my approach to the project was still secondary in nature and lacked any direct contact with the communities, the women and their life stories that I am communicating in this project. This also resulted in a lack of opportunity to co-create with the communities, which could have resulted in a different process and outcome to this project.

Another limitation to the outcome of this project is the documentation of the reactions of the recipients and viewers of these objects, and the measurement of the impact. The potential experiences evoked by the Engagement Objects is something very personal and therefore difficult to measure and document. Visual documentation of the first contact with these objects would also devalue the experience. This first contact with the objects at the Global Advisory Board meeting is something I was unable to attend and is largely undocumented, with the exception of figure 65 (page 111). Feedback from the Core team suggested that the reaction to the Engagement Objects was highly positive. The feedback also suggested that the object evoked conversations, where-in the project was described as thought provoking and emotionally stimulating.

A different approach to this project could be centered around the idea of co-creation by travelling to the communities in Tanzania, Kenya, Nigeria and India, and immersing myself in the context and life stories of these women. This would be an entirely different set up and would possibly involve an emphasis on the methodology of Human centered design.

The project would be defined by conversing and working directly with the women in these communities, hearing their life stories and uncovering key moments and specific experiences that further the topics presented in the context. Through this approach, I would have the opportunity to develop and equip artefacts with a completely new layer of discursion - an unfiltered voice of the women and their stories. These artefacts could possibly be inspired or enriched by the experiences, crafts and sensibilities of these communities, and not only by my past work and learnings. Through this approach, I would have the opportunity to bring not only the context, but the women and their voice closer to the recipients of the artefacts. This would make the whole experience possibly more immersive, engaging and impactful.

Conclusions

This body of work investigated the process of developing a series of contextually embedded design objects, termed as Engagement Objects. The work studied and analyzed the process of realizing three ideas for Engagement Objects - Encapsulation, Future Fossils and Objects Translated.

These objects, inspired by the idea of embedding context in the design of artefacts, were explored through process, form, material and concept. The inspirations and the context that led to the finalized Engagement Objects are presented as a two part literature review. First, the context is explored through five topics in the ongoing discourse of the SRH of women in low resource environments. This is followed by a review of discursive design, material and process. These are explored through four examples.

The final outcomes of this project are an array of glass and ceramic hybrid pieces. Encapsulation explored the physicality and conceptuality of fusing a contextually enriched ceramic form with a glass enclosure. It led to an exploration of narratives surrounding tension, dependency, agency, mobility, society and freedom. Future Fossils explored the process of embedding and fusing contextually linked objects into solid glass in an effort to petrify them. These objects narrate stories of harmful conditions and practices towards the SRH of women. Their fossilization in glass detached these objects from use and presented these objects as a thing of the past in a hopeful near future. Objects translated explored seventeen transition moments in the journey of women as mapped by the Core project's life course approach. Each of these transition moments are translated through adorned ceramic forms in an effort to expand upon the complexities, interconnections and contexts that define these moments.

The outcomes of this thesis explore the process of using an approach like discursive design through applied art to contribute to the expression of research moulded by human centered design. Through this, it also explores the process of developing these contextually embedded objects to provide value to the work being done my M4ID and The Core project.

The project's approach explores the value of creating emotionally evocative and stimulating artefacts. They are born from a design process, but are not functional in a physical sense. Their functionality is defined by how they engage the viewer to their context. Through this, they form a toolkit to expand upon and contribute to an ongoing discourse that they are centered around. As a tool, these artefacts communicate the topics they represent and can be used as a starting point to spark a discourse around these topics. The artefacts are of value as supporting material to the body of research they represent and link to specific and memorable moments of the research. They can be perceived as an intimate and experiential way to engage with their topics. These Engagement Objects now also hold value as a keepsake to an important event in their context - The Core project's first Global Advisory Board meeting. The participants of the event possess a contextually embedded artefact that links back to the event, workshop, research report and presentations through a tactile and physical medium. Feedback from this event and from M4ID suggested that the objects were though provoking and emotionally stimulating. As a memory of this event and a representation of its context, these object's hope to continue adding value and relevance to the topic of SRH of women and providing a voice to their stories in an effort to provoke impact.

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Aalto University
School of Arts, Design
and Architecture

Objects For Impact

Photobook of the Engagement Objects

Sushant Passi
Master of Arts Thesis 2019
Aalto University School of Arts, Design & Architecture

Objects for Impact

Photobook of the Engagement Objects

Sushant Passi

Master of Arts Thesis
Aalto University School of Arts, Design & Architecture
Department of Design / Contemporary Design

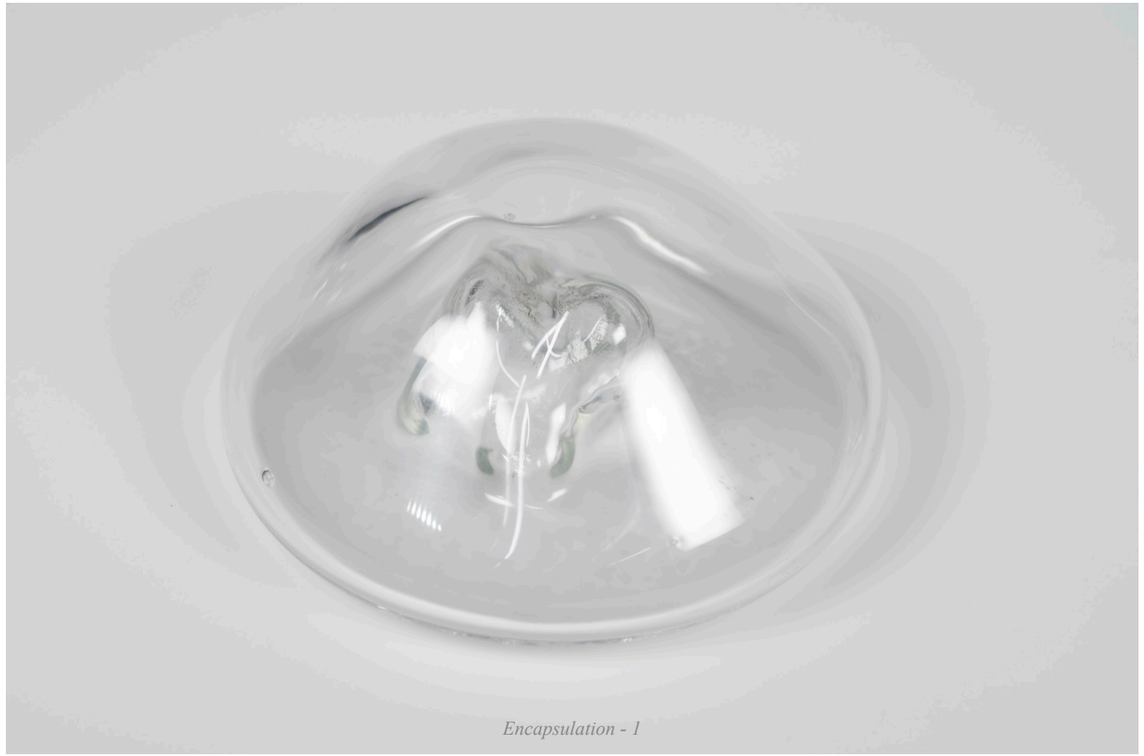
Supervisor - Julia Lohmann
Advisors - Julia Lohmann / Sandra Viña
Number of Pages: 72

2019. Helsinki, Finland

A photobook that presents the Engagement Objects that were developed during the months between October, 2018 and March 2019 as a part of the Core project at M4ID oy. The objects presented here are the outcomes of the MA Thesis - Objects for Impact, and is supplementary to the thesis.

Photography in collaboration with
Alba Bonachela and Yuzhou Wang.

Encapsulation



Encapsulation - 1

Encapsulation - 2

Encapsulation - 3

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Encapsulation - 5

Future Fossils

A scissor - gender based violence / medical care and facilities

A coin from Kenya - Transactional sex

A cola bottle cap - Harmful Abortion Practices

A blade - gender based violence / medical care and facilities

Cola can clips - harmful abortion practices

Coins from Kenya - Transactional sex

Cola can clips - harmful abortion practices

A coin from Kenya - Transactional sex

A coin from Kenya - Transactional sex

Coins from Kenya - Transactional sex

Cola can clips - harmful abortion practices

A coin from Kenya - Transactional sex

A cola bottle cap - Harmful Abortion Practices

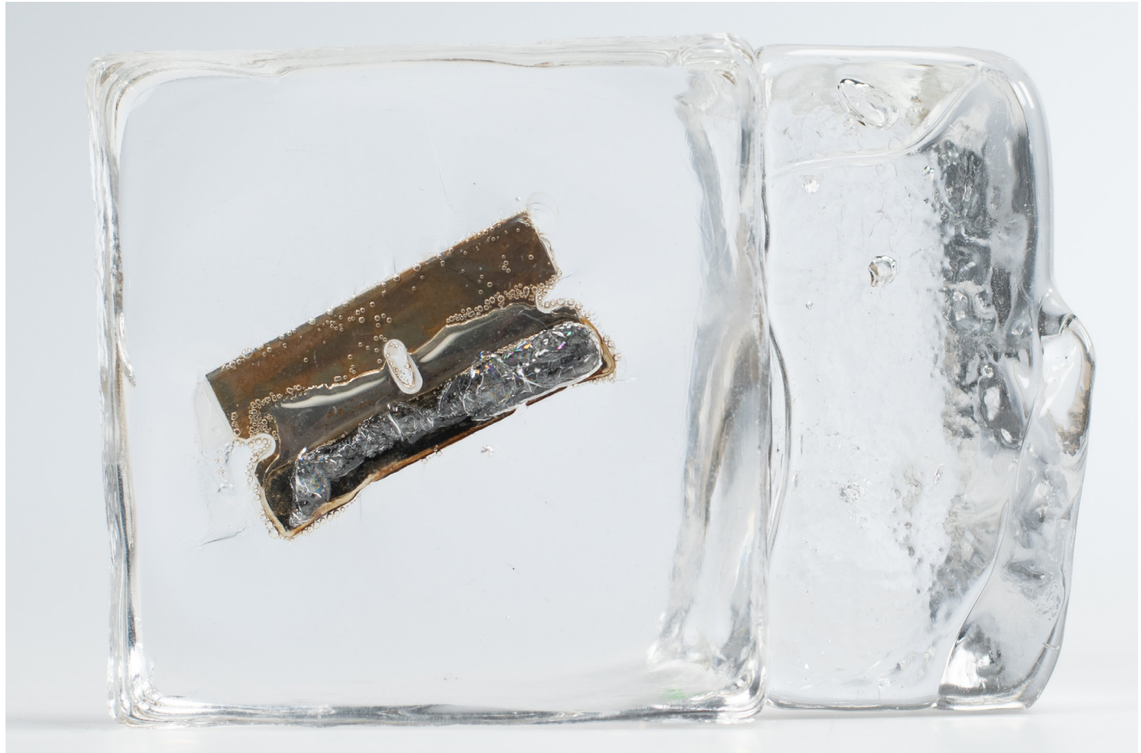
A coin from Kenya - Transactional sex

Cola can clips - harmful abortion practices

A cola can - harmful abortion practices

A blade - gender based violence / medical care and facilities

A blade - gender based violence / medical care and facilities



A blade - gender based violence / medical care and facilities

Objects Translated

Foetal development

Birth

Infancy

Preadolescence

Menarche / Puberty

Adolescence

Sexual initiation

Family planning

Marriage & partnership

Pregnancy

Prenatal care

Labour & delivery

Postnatal care

Motherhood

Motherhood - 2

Menopause

Grandmotherhood

Death

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